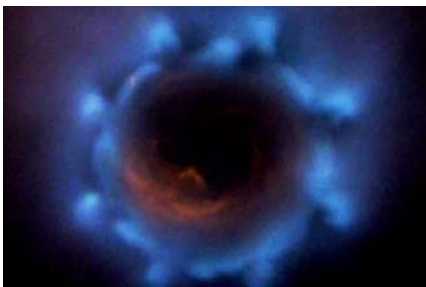


Top expertise for sustainable burner technology.  
Products for your success.



hollowflame®



ARZ



MAGMAblue®

Pure energy.  
Reliable. Efficient. Clean.

## Innovative marathon<sup>®</sup> burner technology.

**Reliable.**

### marathon<sup>®</sup> gas burner up to 44 MW

#### marathon<sup>®</sup> burner technology

Endurance, strength and high performance are special features of the dreizler<sup>®</sup> burners with marathon<sup>®</sup> technology. Due to the pneumatic gas/air ratio control of the marathon<sup>®</sup> burner, the appropriate gas pressure is automatically assigned to the air pressure. Because of that high ratio control, long burner running times and highest efficiency are achieved.

marathon<sup>®</sup> burners are easy to adjust modulating. Once set, the combustion is always optimal even with changing parameters.

#### marathon<sup>®</sup> MONObloc / DUObloc

Gas-, oil- and dual fuel burners marathon<sup>®</sup> are available in the versions MONObloc and DUObloc.

On the use of the DUObloc series you profit from highly flexible installation options. You decide on the variable installation of the fan on site and so you optimize your burner installation. On the use of a MONObloc burner you apply compact power up to high combustion capacities.

#### Applications

Ideally suited for demanding challenges: marathon<sup>®</sup> burners in a reliable, efficient and clean way in many different ranges of industry: Industrial application with hot water, steam or process heat technology, special application technology for CHP or industrial process optimization.

#### marathon<sup>®</sup> gas burner

##### Burner type series

- Version MONObloc  
Gas burner marathon<sup>®</sup> M...(ARZ)  
M 121 - M 10001.4  
Range of capacity: 25 kW - 16.500 kW
- Version DUObloc  
Gas burner marathon<sup>®</sup> M...(ARZ)  
M 10003.1 - M 10003.8  
Range of capacity: 1400 kW – 44.000 kW

##### Technical data and properties

- Modulating control
- Adjustment range up to 1:10
- Mechanical, electronical or pneumatic linkage optional depending on the application
- LOW NO<sub>x</sub> with the dreizler<sup>®</sup> ARZ-System proven in tens of thousands
- Fuels: natural gas, liquid gas, town gas, bio-gas, special gases
- Burner ready to plug
- O<sub>2</sub>- and CO-regulation oxygen / oxygen plus
- Speed control frequency
- Noise dam cap, series and optional
- CE-certified according to EN 676



marathon<sup>®</sup> M 5001.4 ARZ MONObloc

Innovative marathon® burner technology.  
Efficient.

marathon® oil- and dual fuel burner up to 44 MW

**marathon® oil burner**

**Burner type series**

- Version MONObloc  
Oil burner marathon® MC...-L  
MC 5001.4-L - MC 10001.4-L  
Range of capacity: 513 kW – 16.500 kW
- Version DUObloc  
Oil burner marathon® MC...-L  
MC 10003.1-L - MC 10003.6-L  
Range of capacity: 1400 kW – 44.000 kW

**Technical data and properties**

- Adjustment type modulating
- Adjustment range 1:4
- Electronical linkage
- LOW NOx with dreizler hollowflame®
- Fuels: heating oil EL
- Gaseous fuel retrofittable anytime
- Burner ready to plug
- O<sub>2</sub>-regulation oxygen
- Speed control frequency
- Noise dam cap series and optional
- CE-certified according to EN 267

**marathon® dual fuel burner**

**Burner type series**

- Version MONObloc  
Dual fuel burner marathon® MC...  
MC 301 - MC 10001.4  
Range of capacity: 120 kW – 16.500 kW
- Version DUObloc  
Dual fuel burner marathon® MC...  
MC 10003.1 - MC 10003.8  
Range of capacity: 1400 kW – 44.000 kW

**Technical data and properties**

- Adjustment type oil/gas 2-step/modulating, depending on application
- Adjustment range oil/gas up to 1:4 / 1:10
- Pneumatic or electronical linkage
- LOW NOx operation with internal flue gas recirculation ARZsuper and dreizler hollowflame®
- Fuels: natural gas, liquid gas, town gas, bio-gas, special gases, heating oil EL  
Simultaneous combustion
- Burner ready to plug
- O<sub>2</sub> and CO-regulation oxygen / oxygen plus
- Speed control frequency
- Noise dam cap series und optional
- CE-certified according to EN 676 and EN 267



marathon® MC 10003.5 DUObloc

## Optimal CALORAbloc® burner technology. High performance.

### The right solution

For highest technical requirements of industrial applications, for example referring to EN 746-2, the modular burner system CALORAbloc® is particularly suitable.

CALORAbloc® burners consist of a burner bloc with air and fuel port and a separate combustion air fan.

The system tested control and wiring are in a separate control cabinet or under the integrated burner hood.

The optional version air preheating up to 200°C enables a substantial increase in efficiency of heat generation.

#### Applications

CALORAbloc® burners can optimally be adapted to the industrial process. For post combustion, hot gas generation, pilot or auxiliary firing, for many industrial ranges the CALORAbloc® burners are the perfect solution.



CALORAbloc® burner

### Burner type series

The burner system CALORAbloc® is available in three various series:

- Gas burner CALORAbloc® CBG...  
CBG 5003.1 - CBG 10003.5  
Range of capacity: 700 kW – 25.000 kW
- Dual fuel burner CALORAbloc® CBC...  
CBC 5003.1 - CBC 10003.5  
Range of capacity: 700 kW – 25.000 kW
- Oil burner CALORAbloc® CBO...  
CBO 5003.1 - CBO 10003.5  
Range of capacity: 700 kW – 25.000 kW

### Technical data and properties

- Burner bloc with air and fuel supply
- Separate combustion air fans selectable
- High ratio control up to 1:50
- Mechanical, electronical or pneumatic linkage
- LOW NOx operation with internal flue gas recirculation ARZ, ARZsuper and dreizler hollowflame®
- Fuels: Natural gas, liquid gas, heating oil EL, combustion of pyrolysis oil, noxious gas or emission combustion, special gases
- O<sub>2</sub>- and CO-regulation oxygen / oxygen plus
- Speed control frequency
- Noise dam cap series and optional

CALORAbloc®

# Intelligent MAGMAblue® burner technology. Unique.

## Premix surface combustion

### MAGMAblue® technology for OEM equipment of combustion chambers in boilers and machines

The ULTRALOW-NOx technology surface combustion of gas to generate heat and steam to operate boilers was successfully applied by dreizler® for decades.

The new technology MAGMAblue® enables an important improvement of the flame geometry and emission class by the complete premix of natural gas and air on the suction side of the fan. (Applied for patent)

MAGMAblue® burners combine characteristics of excellent LOW-NOx emissions and optimal air ratios Lambda with minimal noise emissions and very low requirements to the necessary combustors. Smaller combustion chambers are possible for industrial users and boiler manufacturers.

MAGMAblue® burners with the premix gas/air system WhirlWind® are ideal for the increasing efficiency of machinery equipment.



Flat burner MAGMAblue® M 20 F 40

### Burner type series

The burner system MAGMAblue® is available in three various series with different burner bodies:

- Cylindric burner up to Ø 315 x 500 mm  
MAGMAblue® M...Z...  
Range of capacity: 72 – 1160 kW
- Flat burner up to Ø 400 mm  
MAGMAblue® M...F...  
Range of capacity: 3 – 1250 kW
- Strip burner up to L = 5000 mm  
MAGMAblue® M...L...  
Range of capacity: 2 – 325 kW

### Technical data and properties

- Premix gas/air mixing in the suction part of the fan
- Adjustment range up to 1:10
- Easy burner adjustment
- Efficient EC motor with speed control
- Low noise operation behaviour
- LOW NOx: < 15 mg/kWh NOx emission
- Fuel gas types: natural gas, liquid gas
- Tested according to EN 676 forced draught burners for gaseous fuels and EN 746-2 Thermal process systems
- Surface performance up to 16 MW/m<sup>2</sup>



MAGMAblue® cylindric burner and strip burner

MAGMAblue®

## Fire and flame for exemplary emission levels.

Clean.

### Top technologies for clean combustion

#### Especially low NOx emissions with ARZ and ARZsuper

The patented internal flue gas recirculation reduces nitrogen oxide emissions of the dreizler<sup>®</sup> gas and dual fuel burners to outstanding values, which are well below the international regulations.

(European patents 347834 and 195 09 219.)

#### dreizler hollowflame<sup>®</sup>

The dreizler hollowflame<sup>®</sup> is a novel combustion system being especially suitable for the application of one or multiple, gaseous or liquid fuels in changing operation or simultaneously for the energy efficient and particular clean heat and steam generation in the industrial sector. (Applied for patent).

In 2010 the dreizler<sup>®</sup> hollow flame technology was awarded the most respected innovation award of the State of Baden-Württemberg – the Dr.-Rudolf-Eberle-Award.



marathon<sup>®</sup> MC 10003.3 with hollowflame<sup>®</sup>

#### Technologies for continual combustion monitoring and control

##### oxygen and oxygen plus

In the dreizler<sup>®</sup> oxygen technology the O<sub>2</sub>-content in flue gas is permanently and precisely determined and adjusted using high quality Lambda sensors. In this way the flue gas quantity and the resulting flue gas loss is continually monitored and minimised.

When using gaseous fuels, dreizler<sup>®</sup> oxygen technology offers the additional possibility of measuring unburned flue gas constituents using an extra flue gas sensor, thus practically operation the burner with stoichiometric combustion ( $\lambda \sim 1$ ).

##### frequency

By using dreizler<sup>®</sup> frequency technology, the combustion air fan also only conveys the precise air quantity needed for the respective load point of the burner and thereby allows savings of current consumption of more than 75% and an incredibly quiet burner operation.

(European patent 199 21 045)

#### Certifications/quality management

Highest quality standards and safety by quality management according to ISO 9001.

marathon<sup>®</sup> burners are CE certified and EC type-tested according to EN 676 forced draught burners for gaseous fuels and EN 267 forced draught oil burners.



hollowflame<sup>®</sup>

Pure energy.  
Reliable. Efficient. Clean.

## High performance

Renowned customers know us as an innovative partner for burner technology. Heating installations with marathon<sup>®</sup> burners of dreizler<sup>®</sup> stand for experience and absolute reliability.



Gas burner marathon<sup>®</sup> M 301 ARZ MONObloc



Gas burner marathon<sup>®</sup> M 10001.2 ARZ MONObloc



Dual fuel burner CALORAbloc<sup>®</sup> CBC 10003.2  
DUObloc with air preheating



Gas burner marathon<sup>®</sup> M 10003.5 ARZ DUObloc



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