



## ONE STAGE GAS BURNERS

### ▶ GAS SERIES

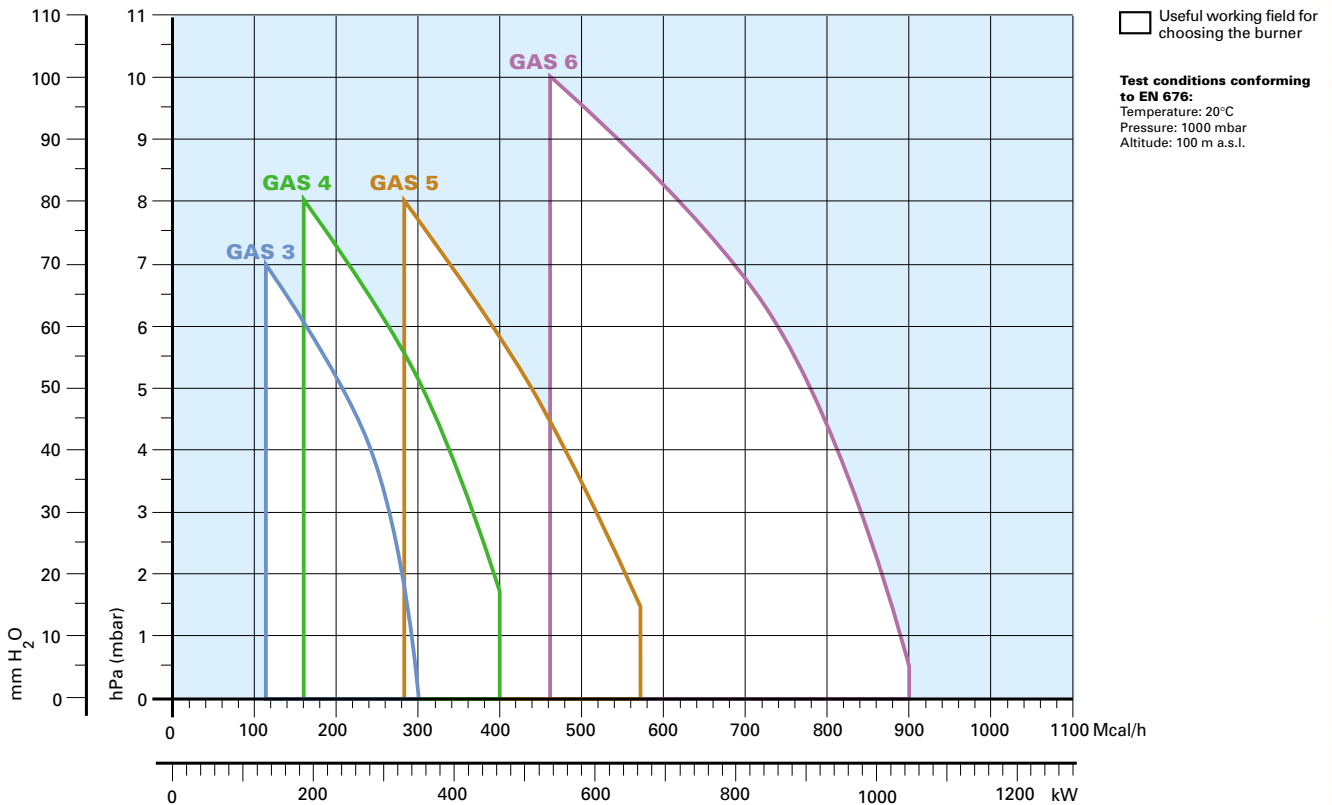
|         |               |
|---------|---------------|
| ▶ GAS 3 | 130 ÷ 350 kW  |
| ▶ GAS 4 | 185 ÷ 465 kW  |
| ▶ GAS 5 | 325 ÷ 660 kW  |
| ▶ GAS 6 | 525 ÷ 1050 kW |



The GAS series of burners cover a firing range from 130 to 1050 kW. Operation is "one stage"; the combustion head, that can be set on the basis of required output, allows optimal performance ensuring good combustion and reducing fuel consumption. The GAS series are extremely reliable burners, featured by a simple use and an operation without particular maintenance intervention. Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head. All electrical components are easily accessible only

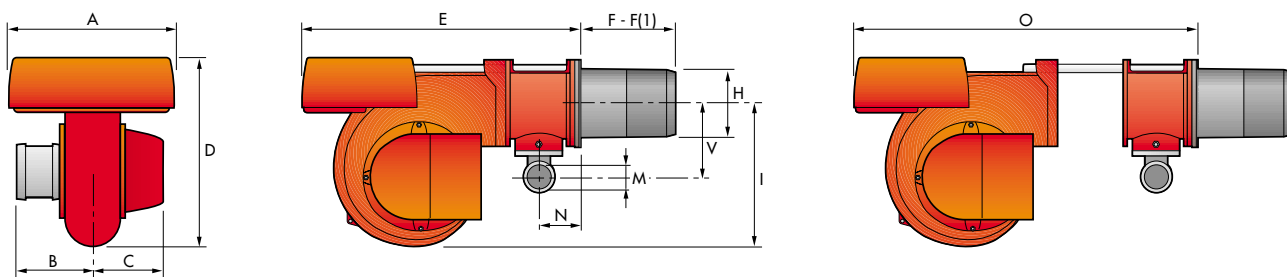
by dismantling a protection panel, thus guaranteeing a quick and simple intervention on components.

## FIRING RATES



## GAS series - OVERALL DIMENSIONS (mm)

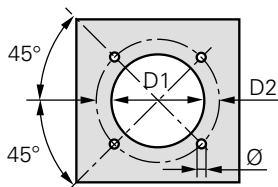
### ► BURNER



| Model   | A   | B   | C   | D   | E   | F - F(1)  | H   | I   | M      | N   | O   | V   |
|---------|-----|-----|-----|-----|-----|-----------|-----|-----|--------|-----|-----|-----|
| ► GAS 3 | 410 | 205 | 205 | 397 | 610 | 185 - 320 | 140 | 292 | 1" 1/2 | 97  | 775 | 165 |
| ► GAS 4 | 410 | 205 | 205 | 397 | 610 | 187 - 320 | 150 | 292 | 1" 1/2 | 97  | 775 | 165 |
| ► GAS 5 | 431 | 226 | 205 | 437 | 645 | 207 - 365 | 155 | 332 | 1" 1/2 | 97  | 810 | 165 |
| ► GAS 6 | 463 | 258 | 205 | 485 | 770 | 227 - 360 | 175 | 370 | 2"     | 131 | 966 | 195 |

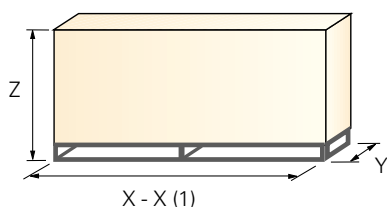
(1) Length with extended combustion head

### ► BURNER - BOILER MOUNTING FLANGE



| Model   | D1  | D2  | Ø   |
|---------|-----|-----|-----|
| ► GAS 3 | 155 | 226 | M10 |
| ► GAS 4 | 165 | 226 | M10 |
| ► GAS 5 | 165 | 226 | M10 |
| ► GAS 6 | 185 | 276 | M12 |

### ► PACKAGING

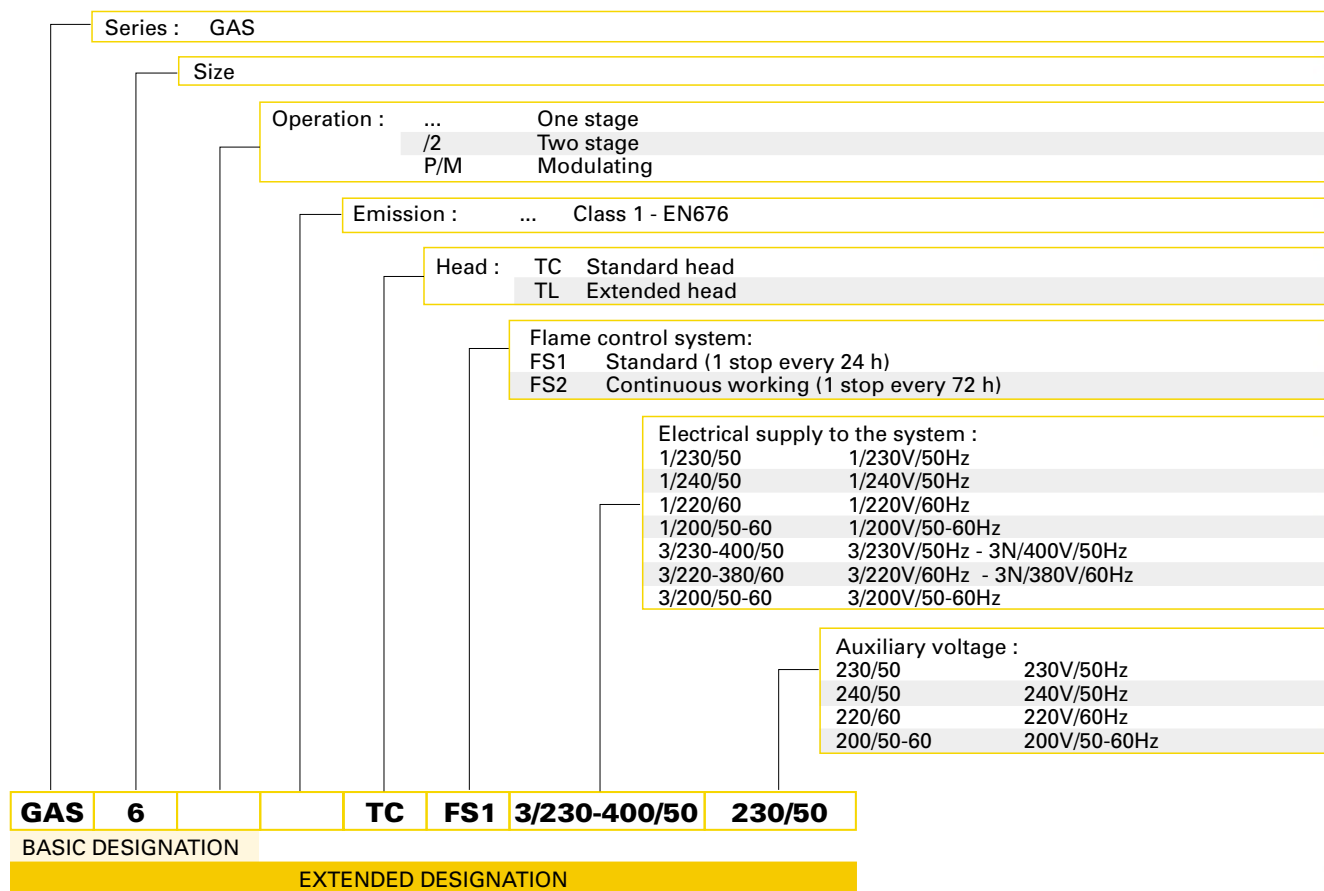


| Model   | X - X (1) | Y   | Z   | kg |
|---------|-----------|-----|-----|----|
| ► GAS 3 | 850       | 545 | 473 | 32 |
| ► GAS 4 | 850       | 545 | 473 | 38 |
| ► GAS 5 | 895       | 543 | 520 | 41 |
| ► GAS 6 | 1045      | 543 | 555 | 58 |

(1) Length with extended combustion head

# GAS series - SPECIFICATION

## ► DESIGNATION OF SERIES



## ► GAS series - STATE OF SUPPLY

Monoblock forced draught gas burner, one stage operation, made up of:

- Air suction circuit
- Fan with forward curved blades
- Air damper for air setting
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Minimum air pressure switch
- Single phase or three phases electrical motor
- Microprocessor-based flame control panel, with diagnostic function
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 40 protection level.

**Standard equipment:**

- 1 gas train gasket
- 1 flange gasket
- 1 insulating screen
- 8 screws for fixing the burner flange to the boiler
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## GAS series - AVAILABLE BURNER MODELS

| Code    | Model |    |     |              | Heat output |                                  | Total electrical power (kW) | Certification | Note          | Price |
|---------|-------|----|-----|--------------|-------------|----------------------------------|-----------------------------|---------------|---------------|-------|
|         |       |    |     |              | (kW)        | Natural Gas (Nm <sup>3</sup> /h) |                             |               |               |       |
| 3751987 | GAS 3 | TC | FS1 | 1/200/50-60  | 200/50-60   | 130-350                          | 13-35                       | 0,48-0,6      | -             |       |
| 3751982 | GAS 3 | TC | FS1 | 1/220/60     | 220/60      | 130-340                          | 13-34                       | 0,4           | -             |       |
| 3751918 | GAS 3 | TC | FS1 | 1/230/50     | 230/50      | 130-350                          | 15-35                       | 0,4           | CE 0085AQ0707 |       |
| 3751960 | GAS 3 | TC | FS1 | 1/240/50     | 240/50      | 130-350                          | 15-35                       | 0,4           | -             |       |
| 3751961 | GAS 3 | TL | FS1 | 1/240/50     | 240/50      | 130-350                          | 15-36                       | 0,4           | -             |       |
| 3751617 | GAS 4 | TC | FS1 | 1/230/50     | 230/50      | 185-465                          | 18,5-46,5                   | 0,54          | -             |       |
| 3751687 | GAS 4 | TC | FS1 | 3/200/50-60  | 200/50-60   | 180-470                          | 18-47                       | 0,6           | -             |       |
| 3751682 | GAS 4 | TC | FS1 | 3/220-380/60 | 220/60      | 180-470                          | 18-47                       | 0,6           | -             |       |
| 3751787 | GAS 5 | TC | FS1 | 3/200/50-60  | 200/50-60   | 320-660                          | 32-66                       | 0,85          | -             |       |
| 3751782 | GAS 5 | TC | FS1 | 3/220-380/60 | 220/60      | 320-660                          | 32-66                       | 1,1           | -             |       |
| 3751717 | GAS 5 | TC | FS1 | 3/230-400/50 | 230/50      | 325-660                          | 32,5-66                     | 0,85          | -             |       |
| 3751887 | GAS 6 | TC | FS1 | 3/200/50-60  | 200/50-60   | 520-1050                         | 52-105                      | 1,7           | -             |       |
| 3751882 | GAS 6 | TC | FS1 | 3/220-380/60 | 220/60      | 520-1050                         | 52-105                      | 1,9           | -             |       |
| 3751817 | GAS 6 | TC | FS1 | 3/230-400/50 | 230/50      | 525-1050                         | 52,5-105                    | 1,7           | -             |       |

Natural gas G20 net calorific value: 10 kWh/Nm<sup>3</sup> - Density gas G20: 0,71 kg/Nm<sup>3</sup>

The burners of GAS series are in according to 90/396 - 89/336 - 73/23 - 92/42 EEC Directive and EN 676 Norm.

## GAS series - AVAILABLE GAS TRAIN MODELS

| Gas train code* | Gas train model | Natural gas                      |                               | LPG                              |  | Note | Gas train price |
|-----------------|-----------------|----------------------------------|-------------------------------|----------------------------------|--|------|-----------------|
|                 |                 | Burner (type)                    | Adapter** (code)              | Burner (type)                    | Adapter** (code)                                 |      |                 |
| 3970556         | MBZRDLE 407     | GAS 3                            | 3000824                       | GAS 3                            | 3000824  | (1)  |                 |
| 3970557         | MBZRDLE 410     | GAS 3<br>GAS 4<br>GAS 5          | 3000824<br>3000824<br>3000824 | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | 3000824<br>3000824<br>3000824<br>3000824+3000843 | (1)  |                 |
| 3970152         | MBZRDLE 412     | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | -<br>-<br>-<br>3000843        | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | -<br>-<br>-<br>3000843                           | (1)  |                 |
| 3970183         | MBZRDLE 415     | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | -<br>-<br>-<br>3000843        | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | -<br>-<br>-<br>3000843                           | (1)  |                 |
| 3970184         | MBZRDLE 420     | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-       | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-                          | (1)  |                 |
| 3970185         | MBZRDLE 420 CT  | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-       | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-                          | (2)  |                 |
| 3970153         | CB 40/2         | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | -<br>-<br>-<br>3000843        | GAS 3<br>GAS 4<br>GAS 5<br>GAS 6 | -<br>-<br>-<br>3000843                           | (1)  |                 |
| 3970154         | CB 50/2         | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-       | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-                          | (1)  |                 |
| 3970166         | CB 50/2 CT      | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-       | GAS 4<br>GAS 5<br>GAS 6          | 3000822<br>3000822<br>-                          | (2)  |                 |
| 3970155         | CBF 65/2        | GAS 6                            | 3000825                       | -                                | -  | (1)  |                 |
| 3970167         | CBF 65/2 CT     | GAS 6                            | 3000825                       | -                                | -  | (2)  |                 |

\* gas train are 230V/50Hz - 220V/60Hz electrical supply

\*\* the adapter price is available in the "Gas train accessories" section

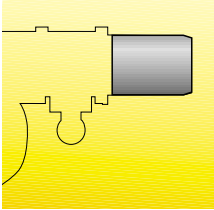
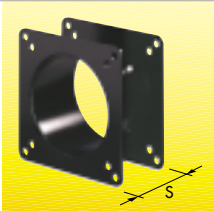

(1) Seal control accessory

(2) Seal control incorporated

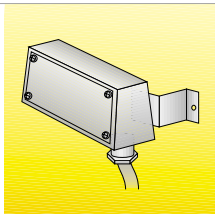
The following table shows the frequently matching between GAS burners and the gas train, referred to different inlet gas pressure.

| Burner | Reference combustion chamber pressure (mbar) | Natural gas G20 (20 mbar) |                       | Natural gas G20 (300 mbar) |                       | LPG (35 mbar)          |                       | LPG (150 mbar) |                       |
|--------|--|---------------------------|-----------------------|----------------------------|-----------------------|------------------------|-----------------------|----------------|-----------------------|
|        |  | Gas train                 | Reference output (kW) | Gas train                  | Reference output (kW) | Gas train              | Reference output (kW) | Gas train      | Reference output (kW) |
| GAS 3  | 4  | -                         | 280                   | MBZRDLE 407                | 280                   | MBZRDLE 407            | 280                   | MBZRDLE 407    | 280                   |
| GAS 4  | 4,5  | MBZRDLE 420<br>CB 50/2    | 370                   | MBZRDLE 410                | 370                   | MBZRDLE 410            | 370                   | MBZRDLE 410    | 370                   |
| GAS 5  | 4  | -                         | 550                   | MBZRDLE 410                | 550                   | MBZRDLE 412            | 550                   | MBZRDLE 410    | 550                   |
| GAS 6  | 5  | -                         | 875                   | MBZRDLE 412                | 875                   | MBZRDLE 420<br>CB 50/2 | 875                   | MBZRDLE 412    | 875                   |

## GAS series - BURNER ACCESSORIES

| <b>Extended head kit</b>   |                   |                                  |                                  |                 |              |
|--|-------------------|----------------------------------|----------------------------------|-----------------|--------------|
|  <p>“Standard head” burners can be transformed into “extended head” versions, by using the special kit.</p>  | <b>Burner</b>     | <b>Standard head length (mm)</b> | <b>Extended head length (mm)</b> | <b>Kit code</b> | <b>Price</b> |
|  | GAS 3             | 185                              | 320                              | 3000605         |              |
|  | GAS 4             | 187                              | 320                              | 3000606         |              |
|  | GAS 5             | 207                              | 365                              | 3000607         |              |
|  | GAS 6             | 227                              | 360                              | 3000608         |              |
| <b>Spacer kit</b>  |                   |                                  |                                  |                 |              |
|  <p>If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.</p> | <b>Burner</b>     | <b>Spacer thickness S (mm)</b>   | <b>Kit code</b>                  | <b>Price</b>    |              |
|  | GAS 3 - 4 - 5 - 6 | 142                              | 3000755                          |                 |              |
| <b>Continuous ventilation kit</b>  |                   |                                  |                                  |                 |              |
|  <p>If the burner requires continuous ventilation in the stages without flame, a special kit is available as given in the following table.</p>          | <b>Burner</b>     |                                  | <b>Kit code</b>                  | <b>Price</b>    |              |
|  | GAS 3 - 4 - 5 - 6 |                                  | in progress                      |                 |              |

## Post-ventilation kit



| Burner            | Kit code | Price |
|-------------------|----------|-------|
| GAS 3 - 4 - 5 - 6 | 3010004  |       |

To prolong ventilation for approximately 5 seconds after opening of thermostats chain, a special kit is available.

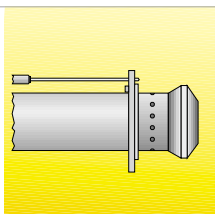
## Sound proofing box



| Burner        | Box type | Average noise reduction [dB(A)] | Box code | Price |
|---------------|----------|---------------------------------|----------|-------|
| GAS 3 - 4 - 5 | C2       | 11                              | 3000777  |       |
| GAS 6         | C3       | 14                              | 3000778  |       |

If noise emission needs reducing even further, sound-proofing boxes are available.

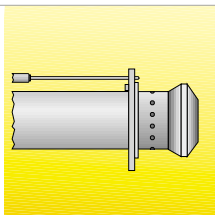
## LPG kit



| Burner | Kit code for standard head | Price | Kit code for extended head | Price |
|--------|----------------------------|-------|----------------------------|-------|
| GAS 3  | 3000657                    |       | 3000807                    |       |
| GAS 4  | 3000658                    |       | 3000808                    |       |
| GAS 5  | 3000659                    |       | 3000809                    |       |
| GAS 6  | 3000753                    |       | 3000810                    |       |

For burning LPG gas, a special kit is available.

## Town Gas kit

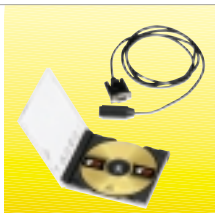


| Burner | Kit code for standard head (*) | Price | Kit code for extended head (*) | Price |
|--------|--------------------------------|-------|--------------------------------|-------|
| GAS 3  | 3000742                        |       | -                              |       |
| GAS 4  | 3000754                        |       | -                              |       |
| GAS 5  | 3000759                        |       | -                              |       |
| GAS 6  | 3000768                        |       | -                              |       |

For burning Town Gas, a special kit is available.

(\*) Without CE certification

## Interface adapter kit

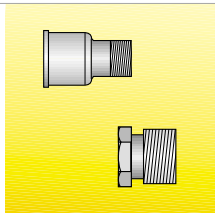


| Burner            | Kit code    | Price |
|-------------------|-------------|-------|
| GAS 3 - 4 - 5 - 6 | in progress |       |

To connect the flame control panel to a personal computer for the transmission of operation, fault signals and detailed service information, an interface adapter with PC software are available.

## GAS series - GAS TRAIN ACCESSORIES

### Adapters



When the diameter of the gas train is different from the set diameter of the burners, an adapter must be fitted between the gas train and the burner.

| Burner | Gas train                   | Dimensions                | Adapter code | Price |
|--------|-----------------------------|---------------------------|--------------|-------|
| GAS 3  | MBZRDLE 407 - 410           | 3/4"  1" 1/2              | 3000824      |       |
| GAS 4  | MBZRDLE 410                 | 3/4"  1" 1/2              | 3000824      |       |
|        | MBZRDLE 420 - CB 50/2       | 2"  1" 1/2                | 3000822      |       |
| GAS 5  | MBZRDLE 410                 | 3/4"  1" 1/2              | 3000824      |       |
|        | MBZRDLE 420 - CB 50/2       | 2"  1" 1/2                | 3000822      |       |
| GAS 6  | MBZRDLE 410                 | 3/4"  1" 1/2              | 3000824      |       |
|        | MBZRDLE 412 - 415 - CB 40/2 | 1" 1/2  2"                | 3000843      |       |
|        | CBF 65/2                    | DN 65  2" 1/2  1" 1/2  2" | 3000825      |       |

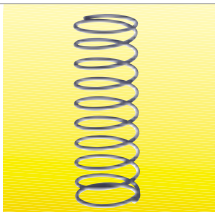
### Seal control kit



To test the valve seals on the gas train, a special "seal control kit" is available.

| Burner | Gas train                                 | Kit code | Price |
|--------|---|----------|-------|
| GAS 3  | MBZRDLE 407 - 410 - 412                   | 3010123  |       |
|        | MBZRDLE 415 - CB 40/2                     | 3010125  |       |
| GAS 4  | MBZRDLE 410 - 412                         | 3010123  |       |
|        | MBZRDLE 415 - 420 - CB 40/2 - 50/2        | 3010125  |       |
| GAS 5  | MBZRDLE 410 - 412                         | 3010123  |       |
|        | MBZRDLE 415 - 420 - CB 40/2 - 50/2        | 3010125  |       |
| GAS 6  | MBZRDLE 410 - 412                         | 3010123  |       |
|        | MBZRDLE 415 - 420 - CB 40/2 - 50/2 - 65/2 | 3010125  |       |

### Stabiliser spring



Accessory springs are available to vary the pressure range of the gas train stabilisers.

| Gas train | Spring                    | Code    | Price |
|-----------|---------------------------|---------|-------|
| CBF 65/2  | Red from 25 to 55 mbar    | 3010133 |       |
| CBF 65/2  | Black from 60 to 110 mbar | 3010135 |       |
| CBF 65/2  | Pink from 100 to 150 mbar | 3090456 |       |