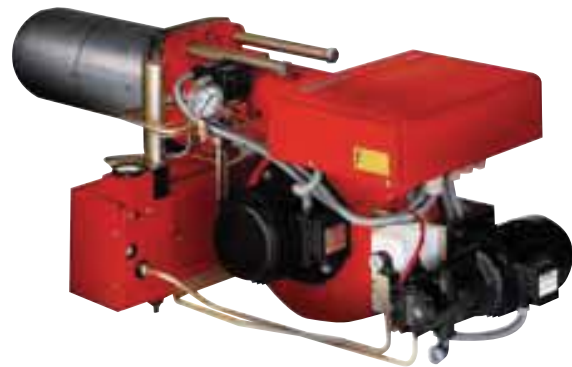


## PRESS N/ECO SERIES

Press N/Eco burner series covers a firing range from 171 to 1140 kW and it has been designed for operation with low sulphur fuels. The burners are equipped with a separate low speed pump. They have been designed for use in civil installations of average dimensions, like building areas and large apartment groups or for use in industrial applications, like small or medium plants. Operation is two stage; a servomotor adjust automatically air damper opening, to obtain the right air delivery on both stage. The burners are fitted with a microprocessor control panel which supplies indication of operation and diagnosis of fault cause. The combustion head, that can be set on the basis of required output, allows optimal performance ensuring good combustion and reducing fuel consumption and is available in two different length to be selected on the basis of specific application requirements.

In basic version the burners are supplied for use with heavy oil 7°E viscosity, but they can be supplied with higher viscosity oil with a specific heaters kit.

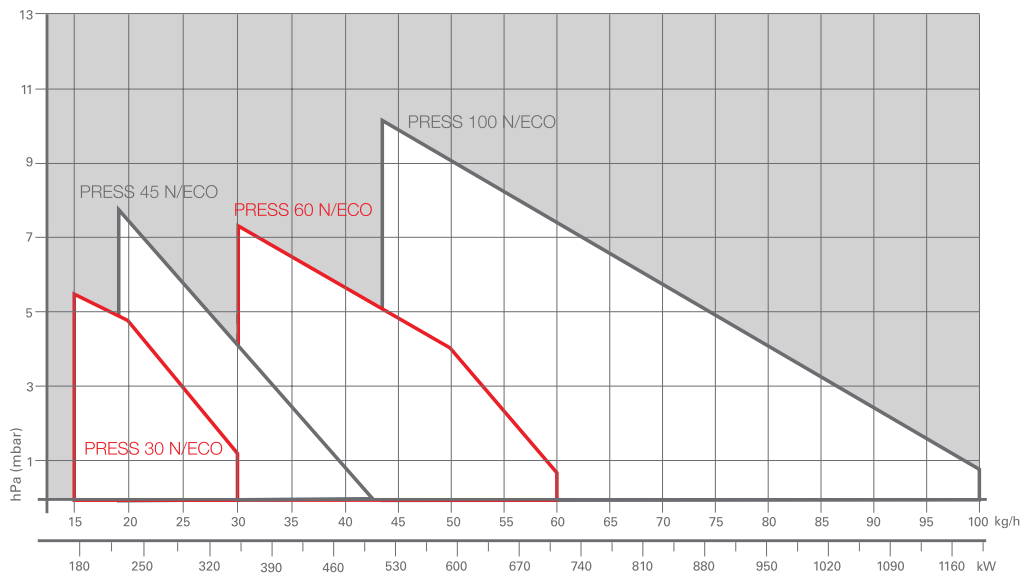
Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head.



HEAVY OIL

|                 |                   |
|-----------------|-------------------|
| PRESS 30 N/ECO  | 85/171 ÷ 342 kW   |
| PRESS 45 N/ECO  | 114/205 ÷ 513 kW  |
| PRESS 60 N/ECO  | 171/342 ÷ 684 kW  |
| PRESS 100 N/ECO | 285/490 ÷ 1140 kW |

## FIRING RATES



Useful working field for choosing the burner

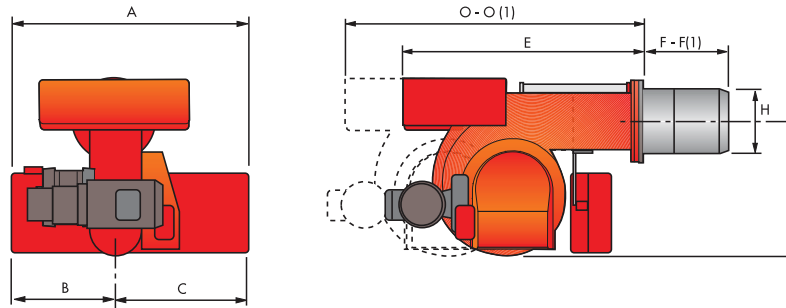
Test conditions conforming to EN267  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.

# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

### Overall dimensions (mm)

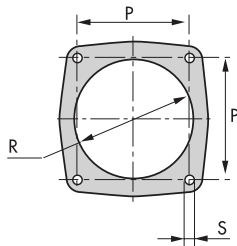
#### BURNER



| MODEL             | A   | B   | C   | E   | F - F(1)  | H   | I   | O - O(1)    |
|-------------------|-----|-----|-----|-----|-----------|-----|-----|-------------|
| ▶ PRESS 30 N/ECO  | 625 | 335 | 290 | 625 | 185 - 320 | 161 | 305 | 968 - 1103  |
| ▶ PRESS 45 N/ECO  | 625 | 335 | 290 | 625 | 235 - 370 | 161 | 305 | 1018 - 1153 |
| ▶ PRESS 60 N/ECO  | 625 | 335 | 290 | 660 | 245 - 400 | 172 | 335 | 1079 - 1234 |
| ▶ PRESS 100 N/ECO | 625 | 335 | 290 | 710 | 250 - 410 | 195 | 370 | 1126 - 1216 |

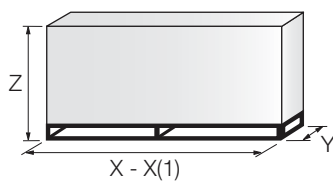
(1) Length with extended combustion head

#### BURNER - BOILER MOUNTING FLANGE



| MODEL             | P   | R   | S    |
|-------------------|-----|-----|------|
| ▶ PRESS 30 N/ECO  | 160 | 170 | M 10 |
| ▶ PRESS 45 N/ECO  | 160 | 170 | M 10 |
| ▶ PRESS 60 N/ECO  | 160 | 180 | M 10 |
| ▶ PRESS 100 N/ECO | 195 | 205 | M 12 |

#### PACKAGING



| MODEL             | X - X(1)   | Y   | Z   | kg  |
|-------------------|------------|-----|-----|-----|
| ▶ PRESS 30 N/ECO  | 880 - 1015 | 690 | 622 | 84  |
| ▶ PRESS 45 N/ECO  | 880 - 1015 | 690 | 622 | 84  |
| ▶ PRESS 60 N/ECO  | 925 - 1095 | 760 | 652 | 87  |
| ▶ PRESS 100 N/ECO | 985 - 1145 | 790 | 652 | 104 |

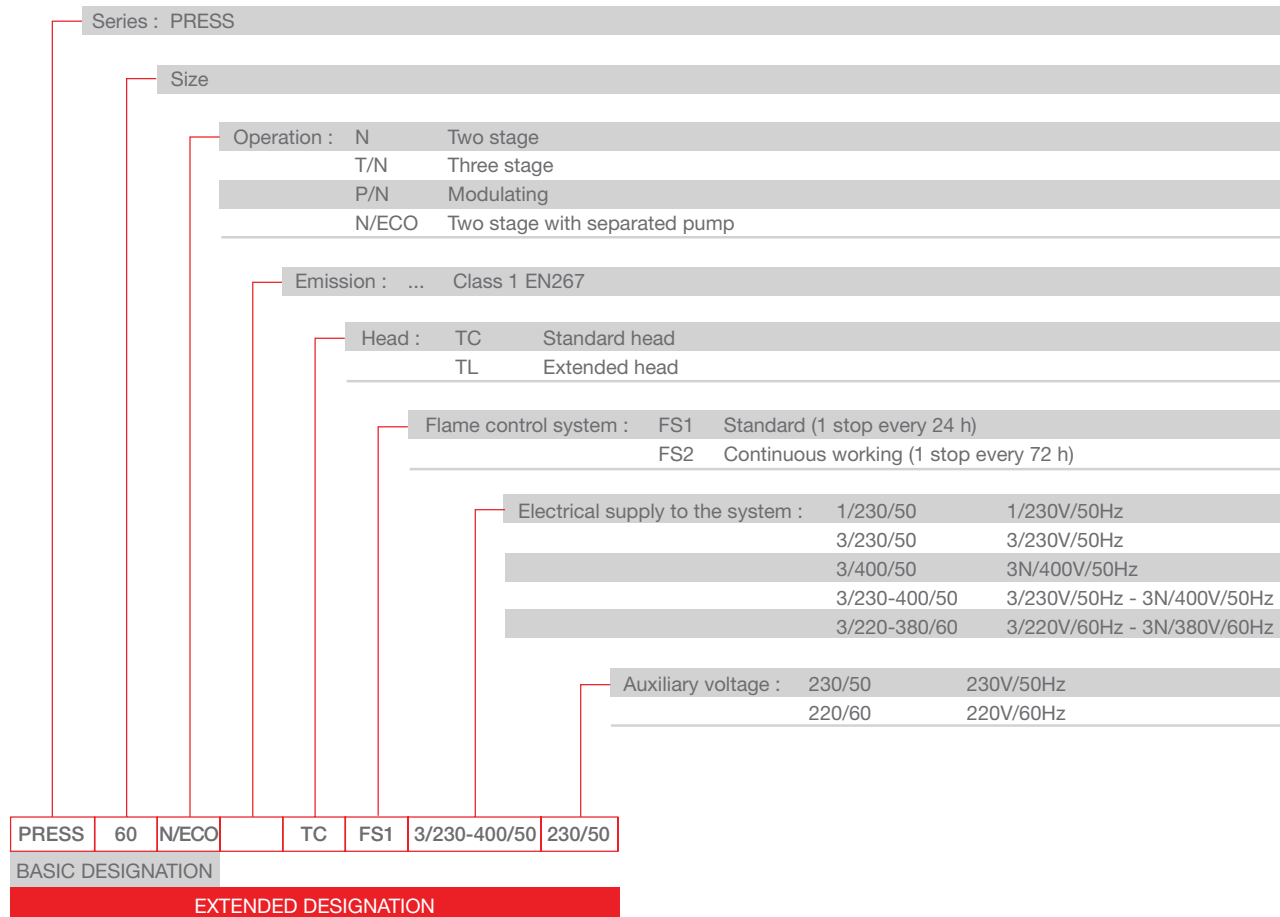
(1) Length with extended combustion head

# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

# Specification

## DESIGNATION OF SERIES



# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

### Specification

#### STATE OF SUPPLY

Monoblock forced draught heavy oil burner, two stage operation, made up of:

- Air suction circuit
- Fan with forward curved blades
- Air dampers for air setting controlled by a servomotor
- Fan motor at 2850 rpm
- Oil pump motor at 1400 rpm
- Combustion head, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Gears pump for high pressure fuel supply, fitted with:
  - filter
  - pressure regulator
  - connections for installing a pressure gauge and vacuumeter
  - internal by-pass for single pipe installation
- Valve unit with a double oil safety valve on the output circuit
- Double filter between pump and nozzle
- Oil preheater provided with chance of a thermometer application for temperature control
- Installed electrical heaters on pump, nozzle holder, valves assembly
- Servomotor for air damper regulation
- Air pressure switch
- Photocell for flame detection
- Microprocessor-based flame control panel, with diagnostic function
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) protection level.

#### Standard equipment:

- 2 flexible hoses for pipe connection
- 2 gaskets for flexible hoses
- 2 nipples for flexible hoses
- 1 thermal insulation screen
- 4 screws for fixing the burner flange to the boiler
- 2 nozzles (see table of available burner model)
- 2 extensions for bars (for long head version)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

## Available models

| CODE    | MODEL           |    |     |              |        | HEAT OUTPUT  |           | TOTAL ELECTRICAL POWER (kW) | CERTIFICATION | NOTE |
|---------|-----------------|----|-----|--------------|--------|--------------|-----------|-----------------------------|---------------|------|
|         |                 |    |     |              |        | (kW)         | (kg/h)    |                             |               |      |
| 3433823 | PRESS 30 N/ECO  | TC | FS1 | 1/230/50     | 230/50 | 85/171-342   | 7,5/15-30 | 3,9                         | -             | (1)  |
| 3433824 | PRESS 30 N/ECO  | TL | FS1 | 1/230/50     | 230/50 | 85/171-342   | 7,5/15-30 | 3,9                         | -             | (1)  |
| 3433881 | PRESS 30 N/ECO  | TC | FS1 | 3/220-380/60 | 220/60 | 85/171-342   | 7,5/15-30 | 4,2                         | -             |      |
| 3433882 | PRESS 30 N/ECO  | TL | FS1 | 3/220-380/60 | 220/60 | 85/171-342   | 7,5/15-30 | 4,2                         | -             |      |
| 3434623 | PRESS 45 N/ECO  | TC | FS1 | 3/230-400/50 | 230/50 | 114/205-513  | 10/18-45  | 4,1                         | -             | (1)  |
| 3434624 | PRESS 45 N/ECO  | TL | FS1 | 3/230-400/50 | 230/50 | 114/205-513  | 10/18-45  | 4,1                         | -             | (1)  |
| 3434681 | PRESS 45 N/ECO  | TC | FS1 | 3/220-380/60 | 220/60 | 114/205-513  | 10/18-45  | 4,2                         | -             |      |
| 3434682 | PRESS 45 N/ECO  | TL | FS1 | 3/220-380/60 | 220/60 | 114/205-513  | 10/18-45  | 4,2                         | -             |      |
| 3435023 | PRESS 60 N/ECO  | TC | FS1 | 3/230-400/50 | 230/50 | 171/342-684  | 15/30-60  | 6,0                         | -             | (1)  |
| 3435024 | PRESS 60 N/ECO  | TL | FS1 | 3/230-400/50 | 230/50 | 171/342-684  | 15/30-60  | 6,0                         | -             | (1)  |
| 3435081 | PRESS 60 N/ECO  | TC | FS1 | 3/220-380/60 | 220/60 | 171/342-684  | 15/30-60  | 6,3                         | -             |      |
| 3435082 | PRESS 60 N/ECO  | TL | FS1 | 3/220-380/60 | 220/60 | 171/342-684  | 15/30-60  | 6,3                         | -             |      |
| 3436023 | PRESS 100 N/ECO | TC | FS1 | 3/230-400/50 | 230/50 | 285/490-1140 | 25/43-100 | 9,5                         | -             | (1)  |
| 3436024 | PRESS 100 N/ECO | TL | FS1 | 3/230-400/50 | 230/50 | 285/490-1140 | 25/43-100 | 9,5                         | -             | (1)  |
| 3436081 | PRESS 100 N/ECO | TC | FS1 | 3/220-380/60 | 220/60 | 285/490-1140 | 25/43-100 | 9,5                         | -             |      |
| 3436082 | PRESS 100 N/ECO | TL | FS1 | 3/220-380/60 | 220/60 | 285/490-1140 | 25/43-100 | 9,5                         | -             |      |

(1) 2 nozzles as standard equipment.

Net calorific value: 11,16 kWh/kg; 9600 kcal/kg - Max Viscosity at 50°C: 50 mm<sup>2</sup>/s (cSt)(7°E).

The burners of PRESS series are in according to 89/336 (2004/108) - 73/23 (2006/95) EC Directive and EN 267 Norm.

# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

### Burner accessories

#### Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the list.

| BURNER                             | SPACER THICKNESS<br>S (mm) | KIT CODE |
|------------------------------------|----------------------------|----------|
| ▶ P 30 N/ECO - 45 N/ECO - 60 N/ECO | 142                        | 3000755  |
| ▶ P 100 N/ECO                      | 142                        | 3000802  |

#### Sound proofing box



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

| BURNER                           | BOX TYPE | AVERAGE NOISE<br>REDUCTION [dB(A)] (*) | BOX CODE |
|----------------------------------|----------|--|----------|
| ▶ PRESS 30 - 45 - 60 - 100 N/ECO | C1/3     | 10                                     | 3010403  |

(\*) according to EN 15036-1 standard

#### Self-cleaning filter



For cleaning heavy oil from dirty particles and impurities, it is equipped with a thermostatic heater for oil with 50°E viscosity at 50°C.

| FILTER TYPE            | FILTER CODE |
|------------------------|-------------|
| ▶ $\phi=1$ 50°E - 50°C | 3000790     |

| HEATER TYPE               | HEATER CODE |
|---------------------------|-------------|
| ▶ Thermostatic heater 80W | 3010059     |

#### Heavy oil kit (available for replacement)



Electrical heaters are installed as standard on PRESS N/ECO. The kit is available for replacement.

| BURNER                       | MAX VISCOSITY | KIT CODE |
|------------------------------|---------------|----------|
| ▶ PRESS 30 N/ECO - 45 N/ECO  | 20°E at 50°C  | 3000797  |
| ▶ PRESS 60 N/ECO - 100 N/ECO | 65°E at 50°C  | 3010013  |

# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

## Burner accessories

### Cartridge filter

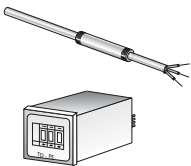


For cleaning heavy oil from dirty particles and impurities, it is equipped with a cartridge system for oil with 7°E viscosity at 50°C.

| FILTER TYPE            | FILTER CODE |
|------------------------|-------------|
| ► Cartridge 7°E - 50°C | 3005209     |

| HEATER TYPE                            | HEATER CODE |
|--|-------------|
| ► Thermo - resistance up to 30°E - 50° | 3010050     |

### Thermostats



Thermostats allow heavy oil temperature control and regulation during burner operation. They are available in electronic and maximum versions.

| BURNER   | THERMOSTAT TYPE | THERMOSTAT CODE |
|--|-----------------|-----------------|
| ► P 30 N/ECO - 45 N/ECO - 60 N/ECO - 100 N/ECO | Electronic      | 3000799         |

### PC Interface kit



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.

| BURNER   | KIT CODE |
|--|----------|
| ► P 30 N/ECO - 45 N/ECO - 60 N/ECO - 100 N/ECO | 3002719  |

# Two Stage Heavy Oil Burners

## PRESS N/ECO SERIES

### Burner accessories

#### Nozzle



#### TYPE F80 PL 45°

The nozzles must be ordered separately. The following table shows the features and codes on the basis of the maximum required output.

NOTE: each burner needs N° 2 nozzles.

| BURNER                              | RATED DELIVERY<br>(kg/h) at 20 bar | GPH  | NOZZLE<br>CODE |
|-------------------------------------|------------------------------------|------|----------------|
| ▶ P 30 N/ECO - 45 N/ECO             | 10,6                               | 2    | 3043121        |
| ▶ P 30 N/ECO - 45 N/ECO             | 11,9                               | 2,25 | 3043131        |
| ▶ P 30 N/ECO - 45 N/ECO - 60 N/ECO  | 13,2                               | 2,5  | 3043141        |
| ▶ P 45 N/ECO - 60 N/ECO             | 15,8                               | 3    | 3043151        |
| ▶ P 45 N/ECO - 60 N/ECO - 100 N/ECO | 18,5                               | 3,5  | 3043161        |
| ▶ P 45 N/ECO - 60 N/ECO - 100 N/ECO | 21,1                               | 4    | 3043171        |
| ▶ P 60 N/ECO - 100 N/ECO            | 23,7                               | 4,5  | 3043181        |
| ▶ P 60 N/ECO - 100 N/ECO            | 26,4                               | 5    | 3043191        |
| ▶ P 100 N/ECO                       | 29                                 | 5,5  | 3043201        |
| ▶ P 100 N/ECO                       | 31,7                               | 6    | 3043211        |
| ▶ P 100 N/ECO                       | 34,3                               | 6,5  | 3043221        |
| ▶ P 100 N/ECO                       | 36,9                               | 7    | 3043231        |
| ▶ P 100 N/ECO                       | 39,6                               | 7,5  | 3043241        |
| ▶ P 100 N/ECO                       | 44,8                               | 8,5  | 3043261        |

#### TYPE F80 PL 60°

| BURNER                              | RATED DELIVERY<br>(kg/h) at 20 bar | GPH  | NOZZLE<br>CODE |
|-------------------------------------|------------------------------------|------|----------------|
| ▶ P 30 N/ECO                        | 6,6                                | 1,25 | 3041092        |
| ▶ P 30 N/ECO - 45 N/ECO             | 7,9                                | 1,5  | 3041102        |
| ▶ P 30 N/ECO - 45 N/ECO             | 9,2                                | 1,75 | 3041112        |
| ▶ P 30 N/ECO - 45 N/ECO             | 10,6                               | 2    | 3043122        |
| ▶ P 30 N/ECO - 45 N/ECO             | 11,9                               | 2,25 | 3043132        |
| ▶ P 30 N/ECO - 45 N/ECO - 60 N/ECO  | 13,2                               | 2,5  | 3043142        |
| ▶ P 45 N/ECO - 60 N/ECO             | 15,8                               | 3    | 3043152        |
| ▶ P 45 N/ECO - 60 N/ECO - 100 N/ECO | 18,5                               | 3,5  | 3043162        |
| ▶ P 45 N/ECO - 60 N/ECO - 100 N/ECO | 21,1                               | 4    | 3043172        |
| ▶ P 60 N/ECO - 100 N/ECO            | 23,7                               | 4,5  | 3043182        |
| ▶ P 60 N/ECO - 100 N/ECO            | 26,4                               | 5    | 3043192        |
| ▶ P 100 N/ECO                       | 29                                 | 5,5  | 3043202        |
| ▶ P 100 N/ECO                       | 31,7                               | 6    | 3043212        |
| ▶ P 100 N/ECO                       | 34,3                               | 6,5  | 3043222        |
| ▶ P 100 N/ECO                       | 36,9                               | 7    | 3043232        |
| ▶ P 100 N/ECO                       | 39,6                               | 7,5  | 3043242        |
| ▶ P 100 N/ECO                       | 44,8                               | 8,5  | 3043262        |