

## PRESS N SERIES

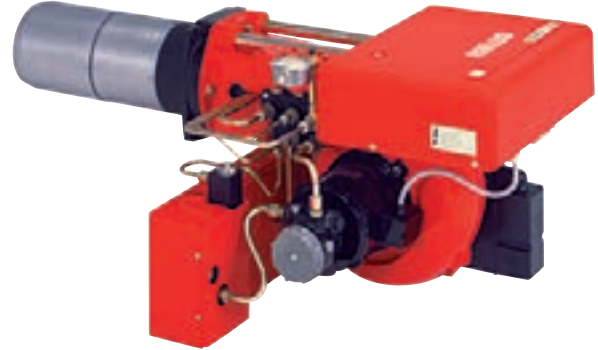
The PRESS N series of burners covers a firing range from 171 to 1140 kW and they have been designed for use in civil installations of average dimensions, like building areas and large apartment groups or for use in industrial applications, like small or medium plants.

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.

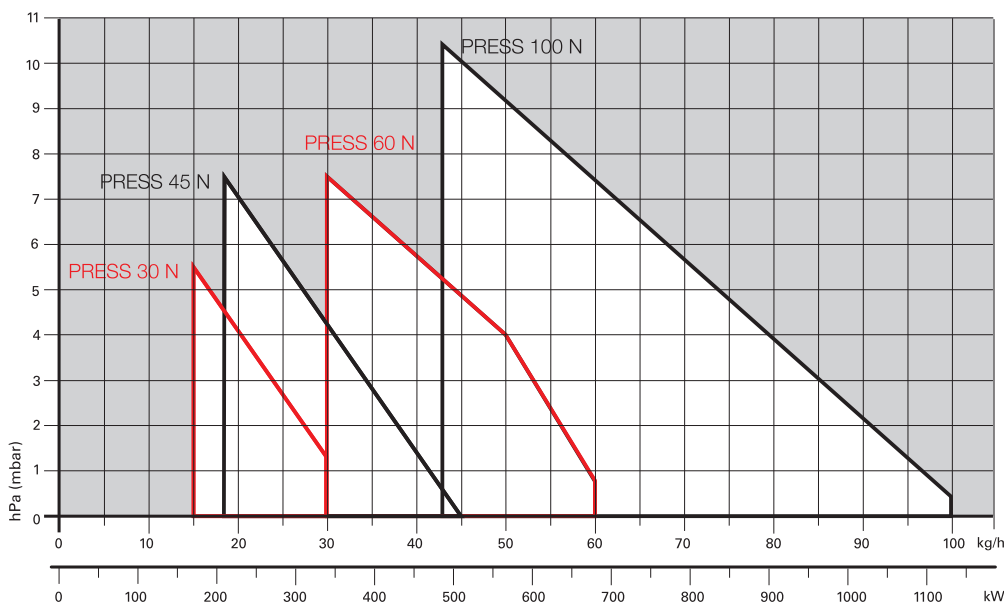
In basic version the burners are supplied for use with heavy oil 7°E viscosity, but they can be supplied with higher viscosity oil with a specific heaters kit.

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



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

## FIRING RATES



Useful working field for choosing the burner

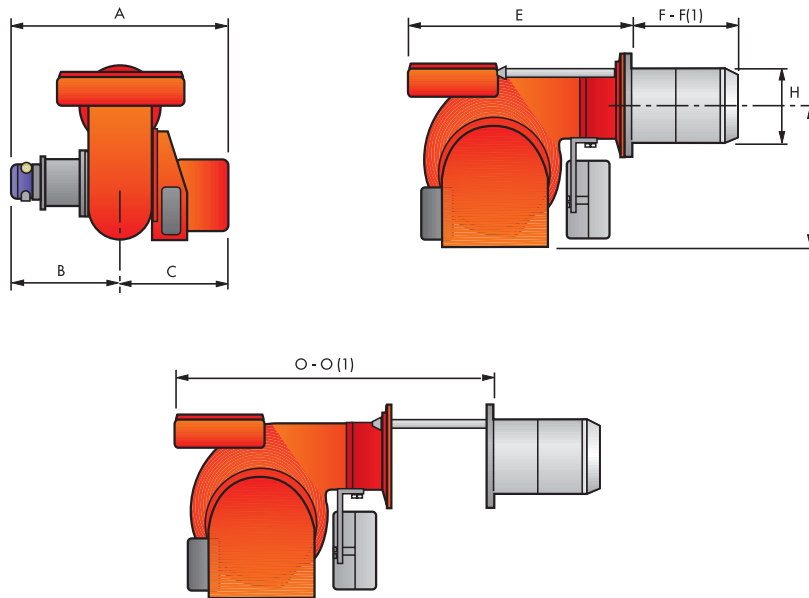
Test conditions conforming to EN267  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.

# Two Stage Heavy Oil Burners

## PRESS N SERIES

### Overall dimensions (mm)

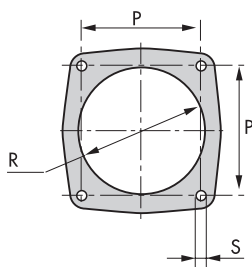
#### BURNER



MODEL	A	B	C	E	F - F(1)	H	I	O - O(1)
► PRESS 30 N	625	335	290	625	185 - 320	161	305	905 - 1080
► PRESS 45 N	625	335	290	625	235 - 370	161	305	925 - 1100
► PRESS 60 N	625	335	290	660	245 - 400	172	335	940 - 1115
► PRESS 100 N	625	335	290	710	250 - 410	195	370	1010 - 1195

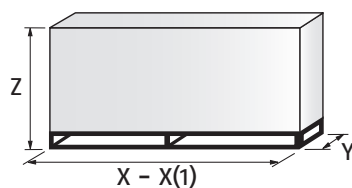
(1) Length with extended combustion head

#### BURNER - BOILER MOUNTING FLANGE



MODEL	P	R	S
► PRESS 30 N	160	170	M 10
► PRESS 45 N	160	170	M 10
► PRESS 60 N	160	180	M 10
► PRESS 100 N	195	205	M 12

#### PACKAGING



MODEL	X - X(1)	Y	Z	kg
► PRESS 30 N	1000 - 1015	790	550	84
► PRESS 45 N	1000 - 1200	790	550	84
► PRESS 60 N	925 - 1200	790	650	87
► PRESS 100 N	1000 - 1200	790	650	104

(1) Length with extended combustion head

# Two Stage Heavy Oil Burners

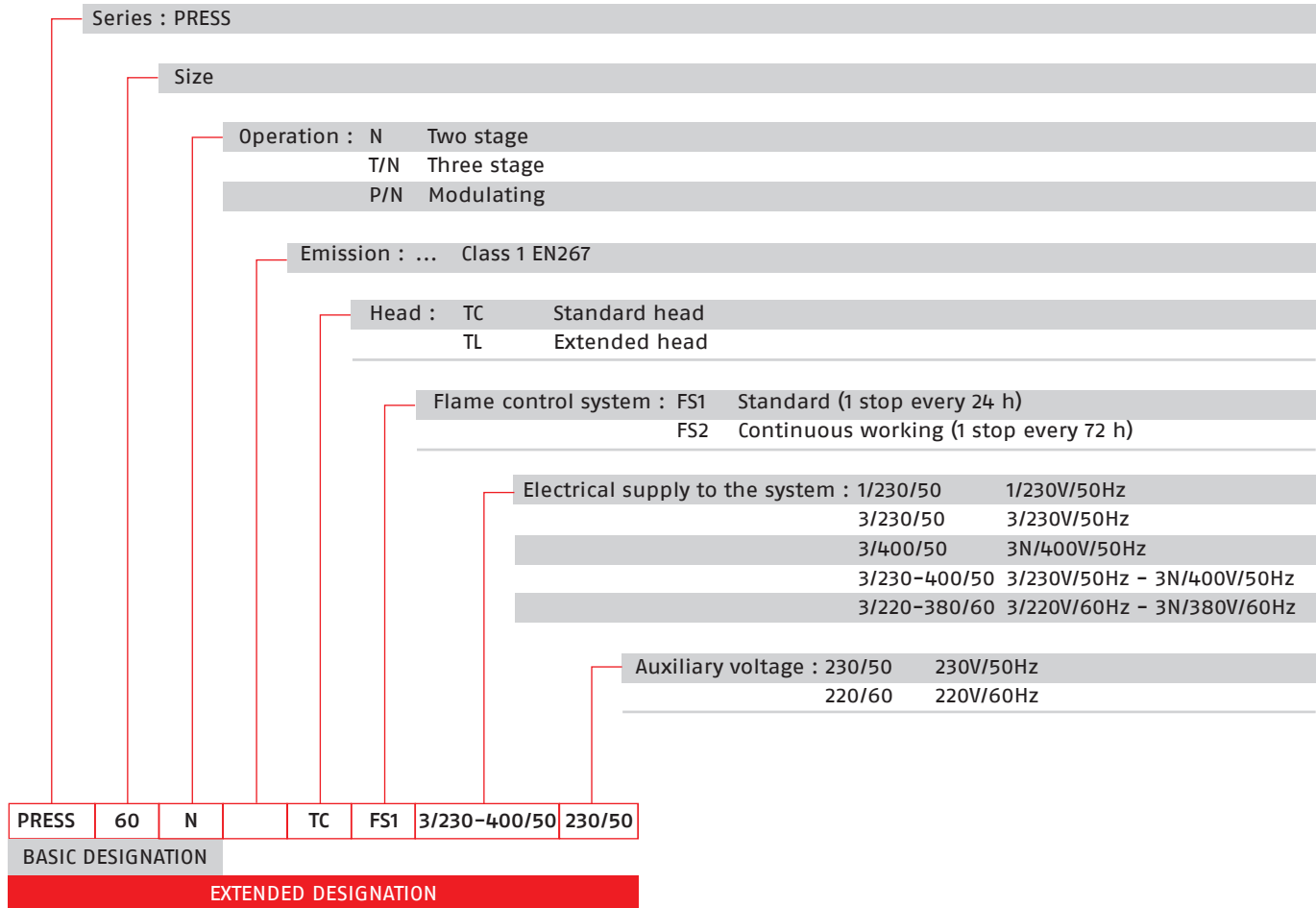
## PRESS N SERIES

**RIELLO**

# Specification

## DESIGNATION OF SERIES

HEAVY OIL



# Two Stage Heavy Oil Burners

## PRESS N 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
- Starting motor at 2850 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;
- Oil preheater provided with chance of a thermometer application for temperature control;
- Servomotor for air damper regulation;
- Photocell for flame detection;
- Microprocessor-based burner safety control box, 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.

## PRESS N SERIES

### Available models

CODE	MODEL					HEAT OUTPUT		TOTAL ELEC- TRICAL POWER (kW)	CERTIFICATION	NOTE
						(kW)	(kg/h)			
3433723	PRESS 30 N	TC	FS1	1/230/50	230/50	85/171-342	7,5/15-30	3,4	-	(1)
3433724	PRESS 30 N	TL	FS1	1/230/50	230/50	85/171-342	7,5/15-30	3,4	-	(1)
3433785	PRESS 30 N	TC	FS1	3/220-380/60	220/60	85/171-342	7,5/15-30	3,7	-	
3433786	PRESS 30 N	TL	FS1	3/220-380/60	220/60	85/171-342	7,5/15-30	3,7	-	
3434523	PRESS 45 N	TC	FS1	3/230-400/50	230/50	114/205-513	10/18-45	3,6	-	(1)
3434524	PRESS 45 N	TL	FS1	3/230-400/50	230/50	114/205-513	10/18-45	3,6	-	(1)
3434585	PRESS 45 N	TC	FS1	3/220-380/60	220/60	114/205-513	10/18-45	3,7	-	
3434586	PRESS 45 N	TL	FS1	3/220-380/60	220/60	114/205-513	10/18-45	3,7	-	
3434923	PRESS 60 N	TC	FS1	3/230-400/50	230/50	171/342-684	15/30-60	5,5	-	(1)
3434924	PRESS 60 N	TL	FS1	3/230-400/50	230/50	171/342-684	15/30-60	5,5	-	(1)
3434985	PRESS 60 N	TC	FS1	3/220-380/60	220/60	171/342-684	15/30-60	5,8	-	
3434986	PRESS 60 N	TL	FS1	3/220-380/60	220/60	171/342-684	15/30-60	5,8	-	
3435923	PRESS 100 N	TC	FS1	3/230-400/50	230/50	285/490-1140	25/43-100	9,0	-	(1)
3435924	PRESS 100 N	TL	FS1	3/230-400/50	230/50	285/490-1140	25/43-100	9,0	-	(1)
3435985	PRESS 100 N	TC	FS1	3/220-380/60	220/60	285/490-1140	25/43-100	9,0	-	
3435986	PRESS 100 N	TL	FS1	3/220-380/60	220/60	285/490-1140	25/43-100	9,0	-	

(1) 2 nozzles as standard equipment.

Net calorific value: 11,16 kWh/kg; 9600 kcal/kg - Max Viscosity at 50°C: 7°E (50 mm<sup>2</sup>/s, cSt), Type MEDIUM HEAVY OIL / USA n° 4.

For viscosity higher 7°E up to 60°C (450 mm<sup>2</sup>/s, cSt), heavy oil, heating cartridges or nozzle, pump and valves group plus pipe heating cables, factory installed are available. Please ask for specific codes.

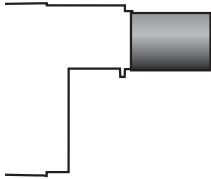
The burners of PRESS series are in according to 2004/108 - 2006/95 - 2006/42 EC Directive and EN 267 Norm.

# Two Stage Heavy Oil Burners

## PRESS N SERIES

### Burner accessories

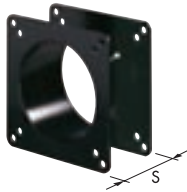
#### Extended head kit



"Standard head" burners can be transformed into "extended head" versions, by using the special kit. The KITS available for the various burners, giving the original and the extended lengths, are listed below.

BURNER	STANDARD HEAD LENGTH (mm)	EXTENDED HEAD LENGTH (mm)	KIT CODE
PRESS 30 N	185	320	20015280
PRESS 60 N	245	400	3092198

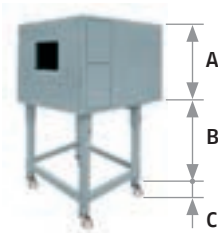
#### Spacer kit



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

BURNER	SPACER THICKNESS S (mm)	KIT CODE
► PRESS 30 N - 45 N - 60 N	142	3000755
► PRESS 100 N	142	3000802

#### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available. In case of generator heights, where a lower dimension "B" is required, ask for the Box Support Kit code 20065135.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	[dB(A)] (*)	BOX CODE
► PRESS 30 N - 45 N - 60 N - 100 N	C4/5	650	372 - 980	110	10	3010404

(\*) Average noise reduction 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



Equipped with electrical heaters, it permits the employment of PRESS N burners with fuel oil of max. viscosity 20°E at 50°C (type BUNKER B / USA n° 5).

BURNER	MAX VISCOSITY	KIT CODE
► PRESS 30 N - 45 N	20°E at 50°C	3000797
► PRESS 60 N - 100 N	20°E at 50°C	3010013

## Burner accessories

### Cartridge filter

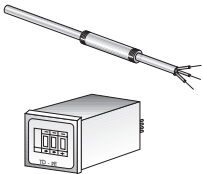


For cleaning heavy oil from dirty particles and impurities, it is equipped with a cartridge system for oil with 7°E viscosity at 50°C.

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
► PRESS 30 N – 45 N – 60 N – 100 N	Electronic	3000799
► PRESS 30 N – 45 N – 60 N – 100 N	Maximum	3000800
► PRESS 30 N – 45 N – 60 N – 100 N	Kit electronic	3010173

### PC Interface kit



To connect the control box 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
► PRESS 30 N – 45 N – 60 N – 100 N	3002719

### Protection kit (electromagnetic interferences)

When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386

# Two Stage Heavy Oil Burners

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

#### TYPE F80 PL 60°

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