

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.

As standard the burners are supplied with electrical heaters installed on crucial parts of hydraulics circuit, for use with heavy oil viscosity up to 20°C.

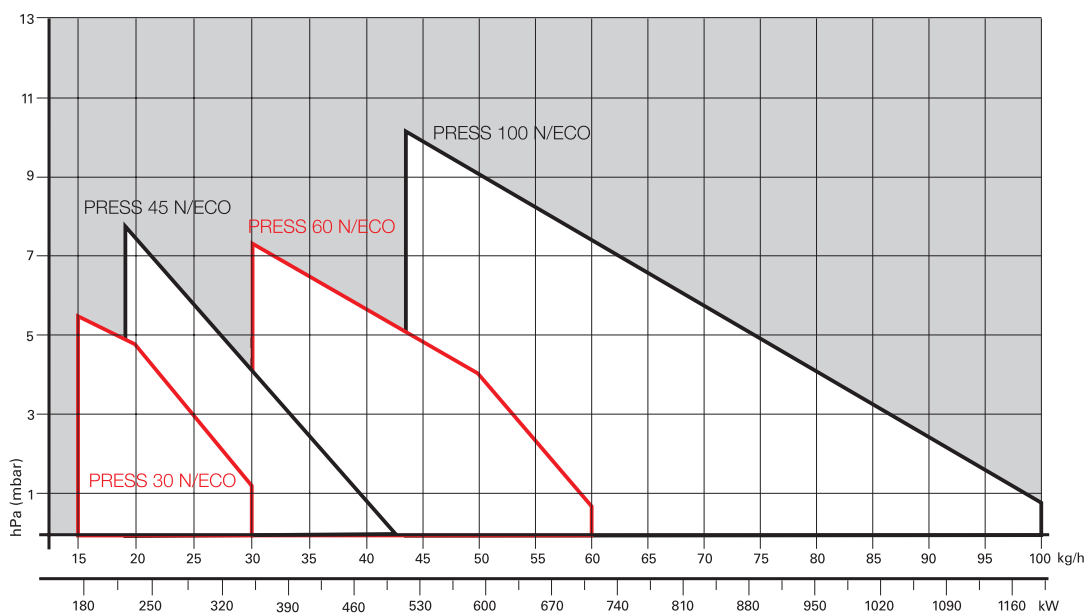
Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head.



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

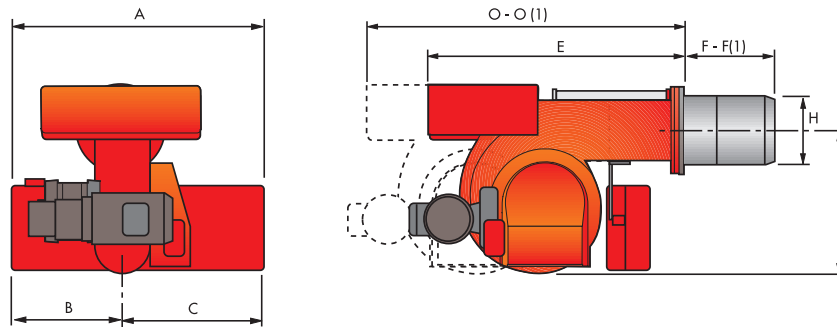
Test conditions conforming to EN267
 Temperature: 20°C
 Pressure: 1013,5 mbar
 Altitude: 0 m a.s.l.

Two Stage Heavy Oil Burners

PRESS N/ECO SERIES

Overall dimensions (mm)

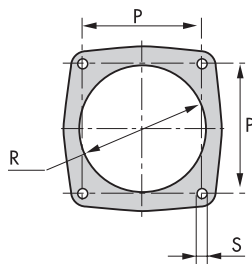
BURNER



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

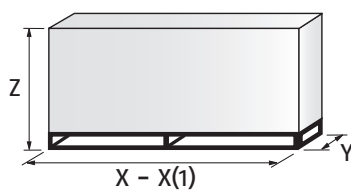
(1) Length with extended combustion head

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

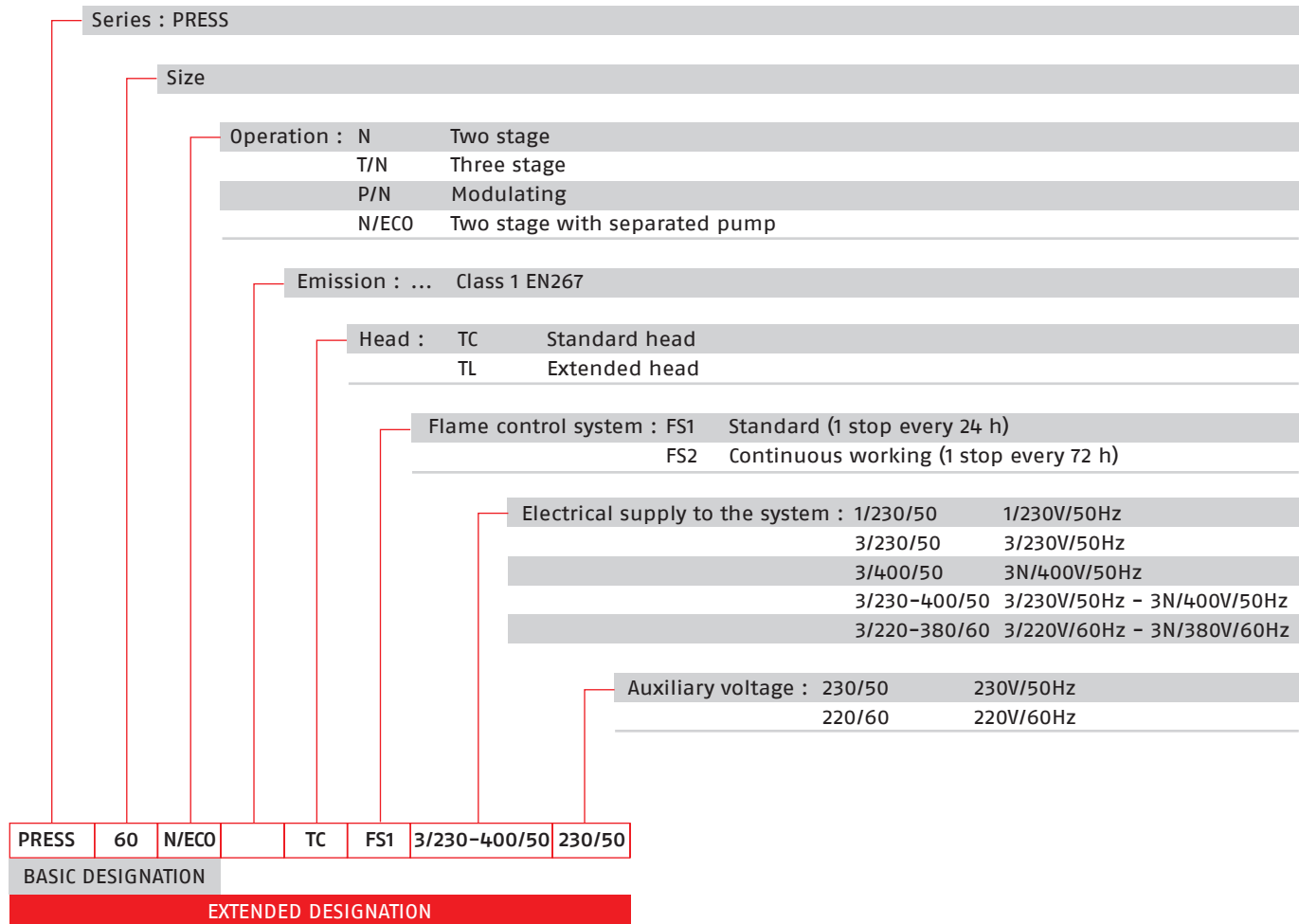
Two Stage Heavy Oil Burners

PRESS N/ECO SERIES

RIELLO

Specification

DESIGNATION OF SERIES



HEAVY OIL

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 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.

Two Stage Heavy Oil Burners

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RIELLO

Available models

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

(1) 2 nozzles as standard equipment.

(2) Installed electrical heaters on pump, nozzle holder, valves assembly

Net calorific value: 11,16 kWh/kg; 9600 kcal/kg - Max Viscosity at 50°C: 20°E (150 mm²/s, cSt), Type BUNKER B / USA n° 5.

For viscosity higher 7°E up to 60°C (450 mm²/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.

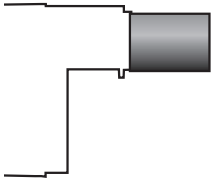
The burners of PRESS series are in according to 2004/108 - 2006/95 - 2006/42 EC Directive and EN 267 Norm.

Two Stage Heavy Oil Burners

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Burner accessories

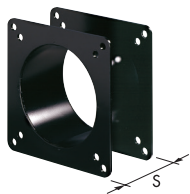
Extended head kit



“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/ECO	185	320	20015280
► PRESS 60 N/ECO	245	400	3092198

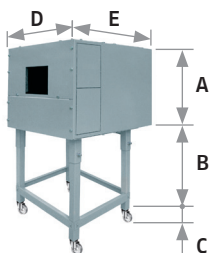
Spacer kit



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
► 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. In case of generator heights, where a lower dimension “B” is required, ask for the Box Support Kit code 20065135. The useful dimensions are 40 mm less than the total dimensions indicated in the table (A, D, E). Not suitable for outdoor use.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	D (mm)	E (mm)	[dB(A)] (*)	BOX CODE
► PRESS 30 – 45 N/ECO PRESS 60 – 100 N/ECO	C4/5	850	160 – 980	110	980	930	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

Burner accessories

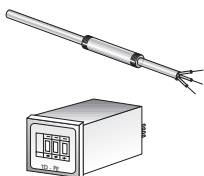
Cartridge filter



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

FILTER TYPE	FILTER CODE
► Cartridge filter 7°E – 50°C	3005209

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	Kit electronic	3000799

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
► P 30 N/ECO – 45 N/ECO – 60 N/ECO – 100 N/ECO	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

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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
▶ 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 (kg/h) at 20 bar	GPH	NOZZLE 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