

## PRESS P/G SERIES

The PRESS P/G series of burners covers a firing range from 890 to 5340 kW.

Setting can be "two stage progressive" or, alternatively, "modulating" with the installation of a PID logic regulator and respective probes, which guarantees a turn down ratio of 3:1.

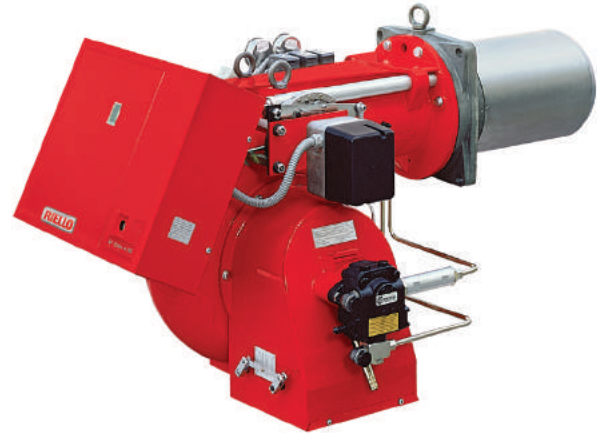
The versatility of this range makes the burner well suited for use on commercial or industrial applications where the load factor is subject to wide variations over a short period of time.

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

**Guidelines for installation of burners in conformity to EU Regulation:**

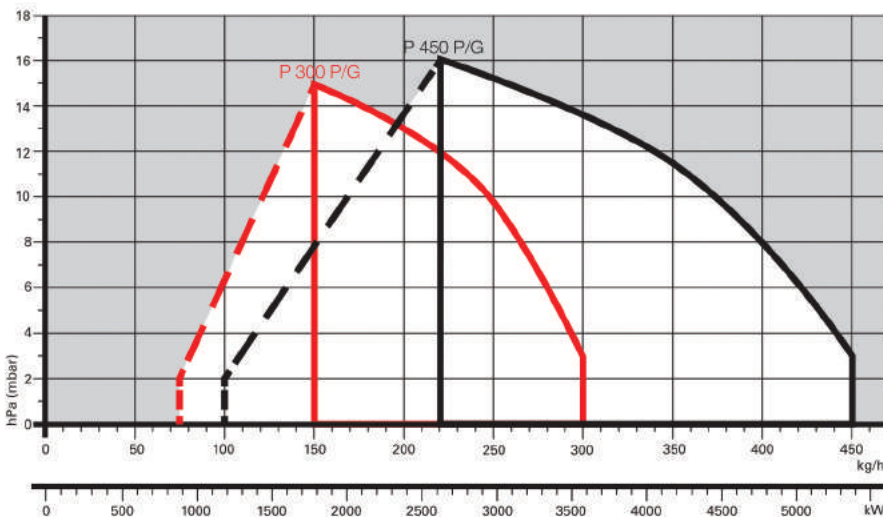
A RIELLO burner (Heat Generator), where it is matched with a water-based boiler (Heater Housing) with a nominal output  $\leq 400$  kW, providing heat for heating purposes and heat to deliver sanitary hot water, can be installed:

- With boilers (heater housings) already in service in the field, for replacement of identical products, in conformity to Article 1, paragraph 2, point (G) of the EU Regulation No. 813/2013;
- With boilers (heater housings) on a new installation, if they have emissions complying with the requirement of Annex II, paragraph 4 of the EU regulation No. 813/2013.



P 300 P/G	890/1780 ÷ 3560 kW
P 450 P/G	1190/2670 ÷ 5340 kW

## FIRING RATES



Useful working field for choosing the burner

Modulation range

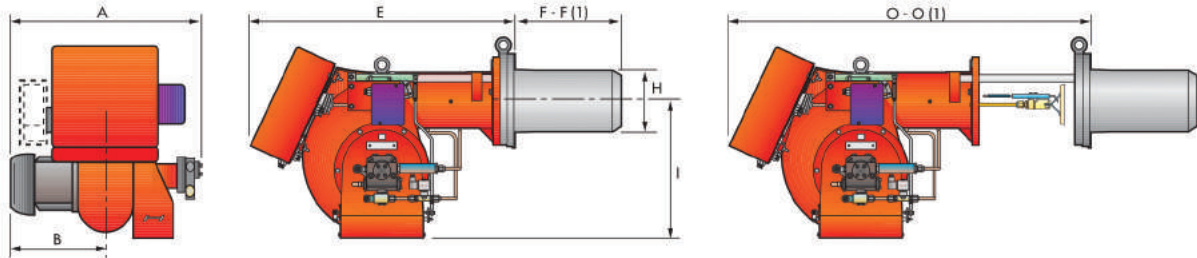
Test conditions conforming to EN267  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.

# Modulating Light Oil Burners

## PRESS P/G SERIES

### Overall dimensions (mm)

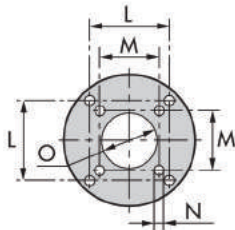
#### BURNER



MODEL	A	B	E	F - F (1)	H	I	O - O (1)
▶ P 300 P/G	858	447	1000	444 - 574	295	496	1440 - 1570
▶ P 450 P/G	950	508	1070	476 - 606	336	525	1546 - 1676

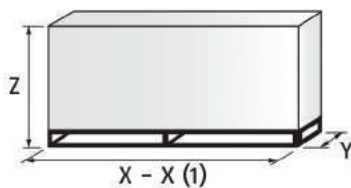
(1) Length with extended combustion head.

#### BURNER - BOILER MOUNTING FLANGE



MODEL	L	M	N	O
▶ P 300 P/G	260	-	M18	300
▶ P 450 P/G	310	-	M20	340

#### PACKAGING

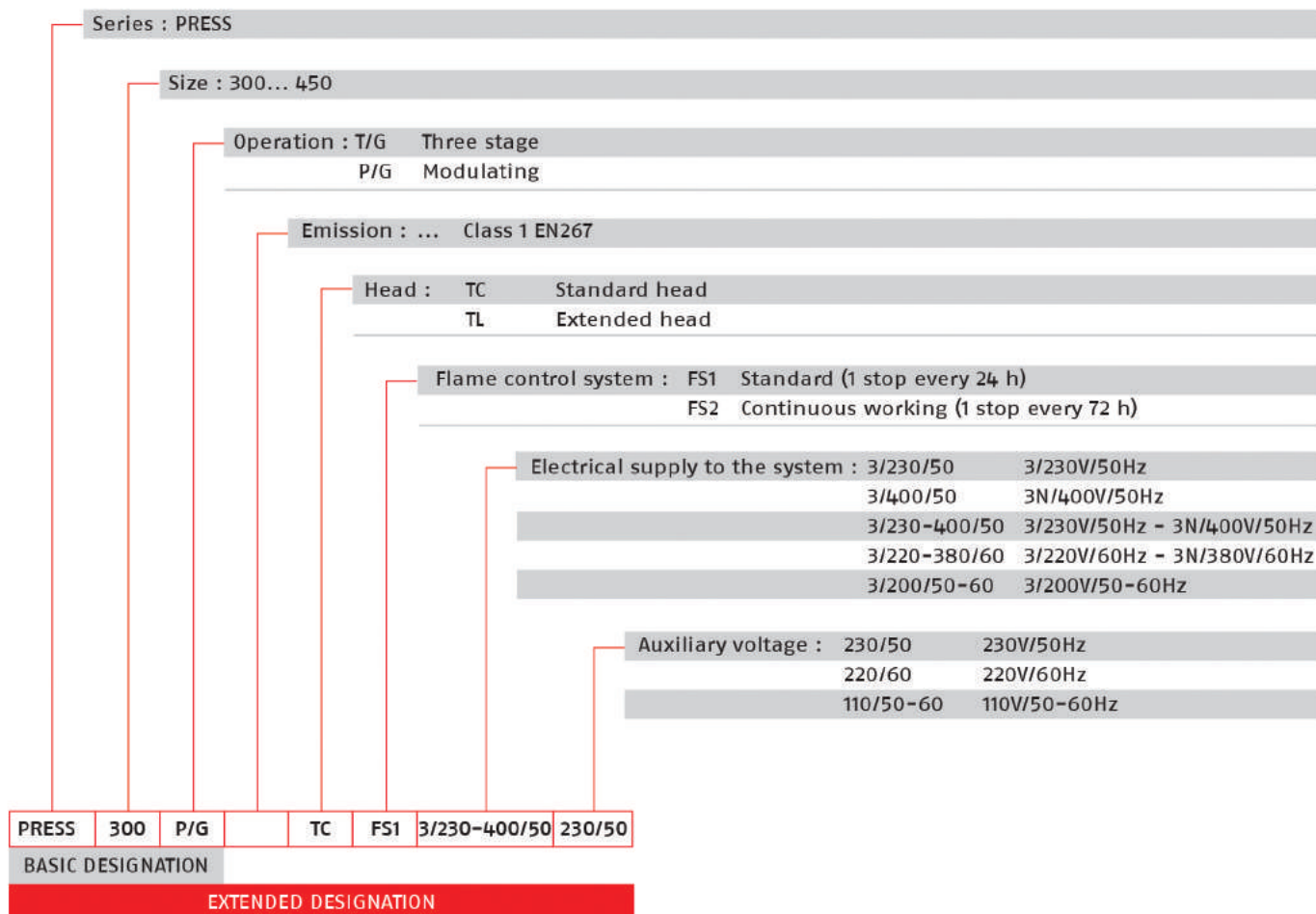


MODEL	X - X (1)	Y	Z	kg
▶ P 300 P/G	2040	1180	1125	238
▶ P 450 P/G	2040	1180	1125	300

(1) Length with extended combustion head.

## Specification

### DESIGNATION OF SERIES



### Specification

#### STATE OF SUPPLY

Monoblock forced draught oil burner, two stage progressive or modulating operation, with a kit, fully automatic, made up of:

- Air suction circuit
- Fan with forward curved blades high performance pressure levels
- Air damper for air setting and automatic oil output regulator controlled by a servomotor with variable cam
- Starting motor at 2850rpm, three-phase 400V with neutral, 50Hz
- Combustion head, that can be set on the basis of the required output, 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 and double safety valve on the return circuit
- Safety oil pressure switch for stop the burner in the case of problems on return circuit
- Photocell for flame detection
- Burner safety control box, fitted with control functions for the correct positioning of the servomotor and possibility of post-ventilation by just changing the electric wiring
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) electric protection level.

#### Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 nipples for the connection to the pump
- wiring looms fittings for electrical connections
- 4 screws for fixing the burner flange to the boiler
- 2 slide bar extensions (for the extended head models of P 300 P/G e P 450 P/G)
- 1 star delta starter (on models where provided)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

## PRESS P/G SERIES

## Available models

### Burners

CODE	MODEL						HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	NOTE
							(kW)	(kg/h)		
20169232	PRESS 300	P/G	TC	FS1	3/400/50	230/50	890/1780+3560	75/150+300	10.6	(2)(3)
20169233	PRESS 300	P/G	TL	FS1	3/400/50	230/50	890/1780+3560	75/150+300	10.6	(2)(3)
20169224	PRESS 300	P/G	TC	FS1	3/400/50	230/50	890/1780+3560	75/150+300	10.6	(1)(3)
20169234	PRESS 300	P/G	TL	FS1	3/400/50	230/50	890/1780+3560	75/150+300	10.6	(1)(3)
20169235	PRESS 450	P/G	TC	FS1	3/400/50	230/50	1190/2670+5340	100/225+450	16.9	(1)(3)
20169236	PRESS 450	P/G	TL	FS1	3/400/50	230/50	1190/2670+5340	100/225+450	16.9	(1)(3)

(1) Star-delta starting, as standard equipment

(2) For the 3/230/50 version use the 220 - 230 V conversion kit (see the burner accessories paragraph)

(3) with RFGO control box

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4+6 mm<sup>2</sup>/s (cSt)

The burners of PRESS series are in according to 2014/30/EU - 2014/35/EU - 2006/42 EC Directive and EN 267.

Due to the improvement of the technical specification of some products, some burner codes have been changed. The table below summarizes the correspondence between the previous and the new code.

MODEL	NEW CODE	OLD CODE
PRESS 300 P/G TC FS1 3/400/50 230/50	20169232 (3)	3478941
PRESS 300 P/G TL FS1 3/400/50 230/50	20169233 (3)	3478942
PRESS 300 P/G TC FS1 3/400/50 230/50	20169224 (3)	3478945
PRESS 300 P/G TL FS1 3/400/50 230/50	20169234 (3)	3478946
PRESS 450 P/G TC FS1 3/400/50 230/50	20169235 (3)	3479371
PRESS 450 P/G TL FS1 3/400/50 230/50	20169236 (3)	3479372

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## PRESS P/G SERIES

### Burner accessories

#### Return nozzles



The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 1 nozzle.

BURNER	RATED OUTPUT kg/h (*)	NOZZLES BERGONZO B5 45° WITHOUT "SA" NEEDLE CODE	NOZZLES FLUIDICS N2 45° WITHOUT NEEDLE CODE
▶ P 300 P/G	150	3009314	3045479
▶ P 300 P/G	175	3009316	3045481
▶ P 300 P/G	200	3009318	3045483
▶ P 300 - 400 P/G	225	3009320	3045485
▶ P 300 - 400 P/G	250	3009322	3045487
▶ P 300 - 400 P/G	275	3009324	3045489
▶ P 300 - 400 P/G	300	3009326	3045491
▶ P 450 P/G	325	3009328	3045493
▶ P 450 P/G	350	3009330	3045495
▶ P 450 P/G	375	3009332	3045497
▶ P 450 P/G	400	3009334	3045499
▶ P 450 P/G	425	3009336	3045500
▶ P 450 P/G	450	3009338	3045501

(\*) Nozzle rated delivery is referred to atomised pressure

#### Spacer kit

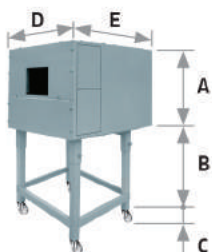


If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the following list.

BURNER	SPACER THICKNESS S (mm)	CODE
▶ P 300 P/G	122	3000723
▶ P 450 P/G	130	3000751

## Burner accessories

### Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available. When a lower "B" dimension is required, it is available the Box Support Kit code 20065135 which allows to reduce it at the fixed dimension of 55 mm. The sound-proofing boxes are not suitable for outdoor use.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	D (mm)	E (mm)	[dB(A)] (*)	BOX CODE
▶ P 300 P/G P 450 P/G	C7	1255	160 - 980	110	1140	1345	10	3010376

(\*) Average noise reduction according to EN 15036-1 standard

### Accessories for modulating operation



To obtain modulating operation, the PRESS P/G series of burners requires a regulator. For remote setpoint use RWF 55.

BURNER	TYPE	CODE
▶ P 300 - 450 P/G	RWF 50.2	20100018
	RWF 55.5	20101965

The relative temperature or pressure probes fitted to the regulator, must be chosen on the basis of the application.

BURNER	PROBE TYPE	RANGE (°C) (bar)	PROBE CODE
▶ P 140 - 200 - 300 - 450 P/G	Temperature PT100	-100 ÷ 500°C	3010110
▶ P 140 - 200 - 300 - 450 P/G	Pressure 4 ÷ 20 mA	0 ÷ 2,5 bar	3010213
▶ P 140 - 200 - 300 - 450 P/G	Pressure 4 ÷ 20 mA	0 ÷ 16 bar	3010214
▶ P 140 - 200 - 300 - 450 P/G	Pressure 4 ÷ 20 mA	0 ÷ 25 bar	3090873

Depending on the servomotor fitted to the burner, a three-pole potentiometer (1000 Ω) can be installed to check the position of the servomotor.

BURNER	POTENTIOMETER KIT CODE
▶ P 300 - 450 P/G	3010021



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### Burner accessories

#### Burner support



For easier maintenance, a mobile burner support has been designed, which means the burner can be dismantled without the need of forklift trucks.

BURNER	SUPPORT CODE
▶ P 300 P/G – P 450 P/G	3000731

#### 220-230 V conversion kit

This kit is required to convert the 380-400 V models into the 220 or 230 V version.

BURNER	SUPPORT CODE
▶ P 300 P/G	20163347