



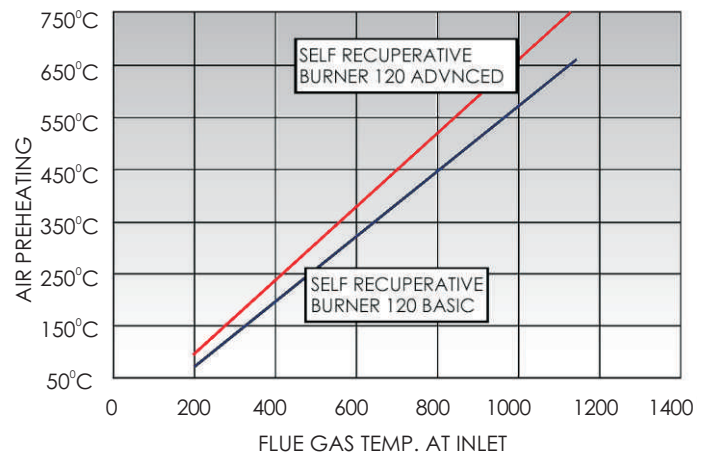
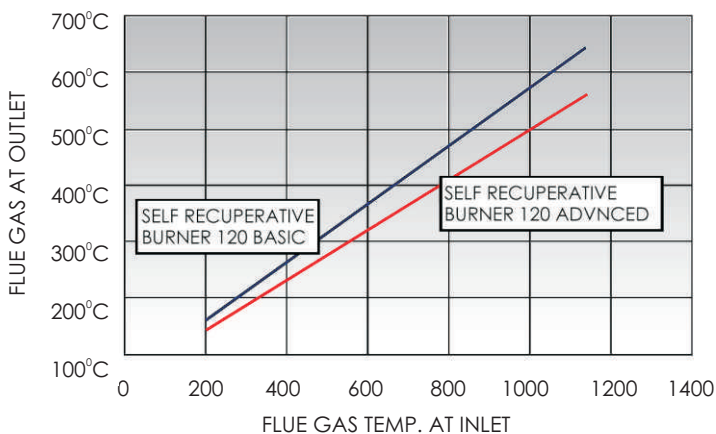
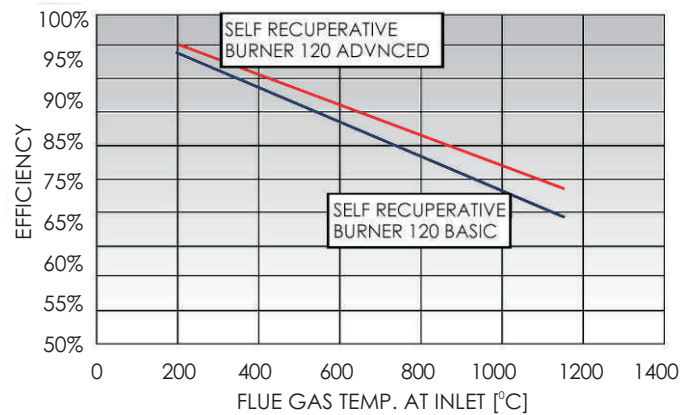
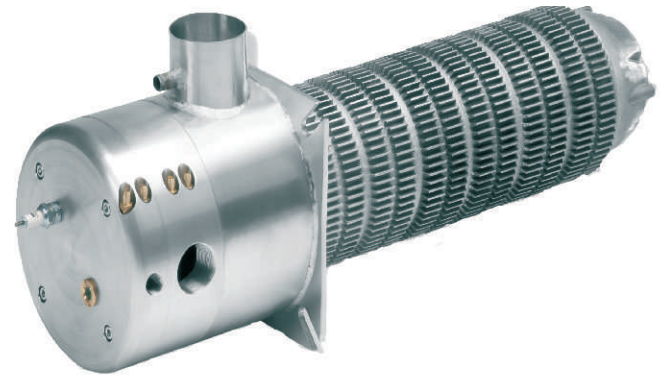
# WESMAN COMBUSTION EQUIPMENT

## SELF RECUPERATIVE BURNERS

Self Recuperative Burners are equipped with an integrated heat exchanger to preheat combustion air by thermal utilisation of the flue gases. Depending on the application, energy savings of around 50% or more are achievable. Self Recuperative Burners are applicable for Single Ended Radiant Tubes (SER) as well as for open fired industrial furnaces. The RECUPERATIVE BURNER BASIC which is equipped with a Tube Type Recuperator will achieve pay back within a short period of time. The SELF RECUPERATIVE ADVANCED with a cased Fin Type Recuperator is highly efficient and will further shorten the pay back period.

### DESCRIPTION

- Capacity Range 30-300 kW
- Suitable for Single Ended Radiant Tubes with 100-300 mm dia
- Ignition by direct spark or LPG Pilot on request
- Flame supervision by flame rod (single electrode) or UV-cell
- High Flame Velocity
- Flame Less
- Low-NOx-combustion
- Available for Natural Gas, LPG, Coke Oven Gas, Mixed Gas

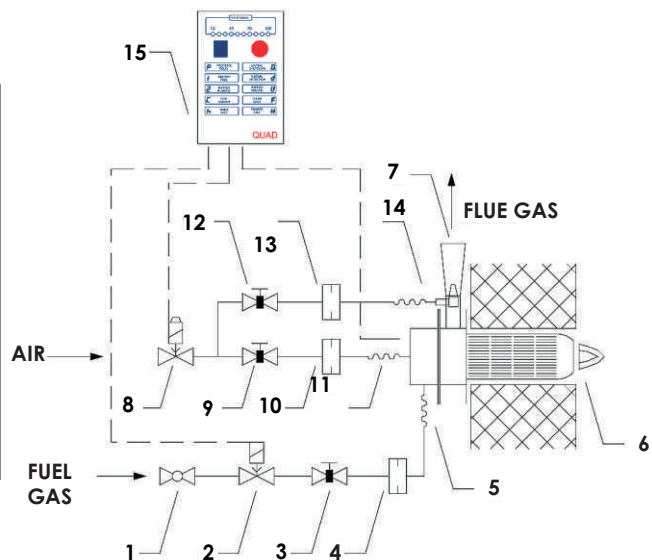


### EXPLANATIONS

The charts shown here are samples for the Self Recuperative Burner 120 Series, recuperator length 540 mm, connecting capacity 80 kW, operation with natural gas and 10% excess air in ON/OFF-pulse mode with a duty cycle of appr. 70%. Irregular operating conditions will result in differing data.

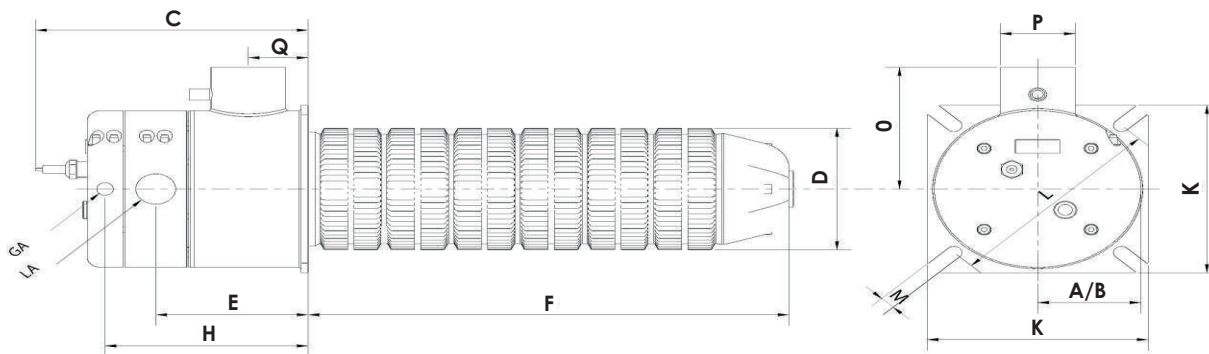
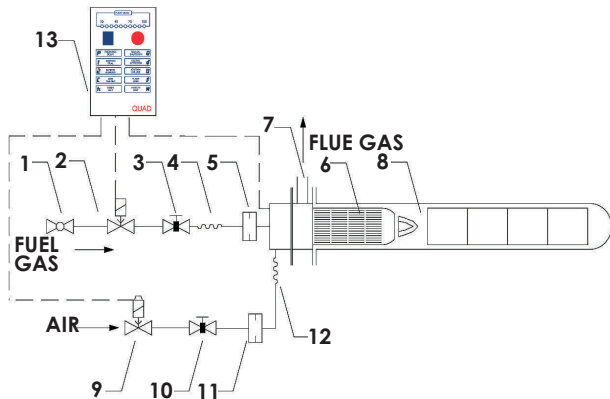
## Sample of a RECUFIRE for Open Fired Systems

1	Manual Shut-Off-Valve for Gas	9	Adjustment Valve Combustion Air
2	Solenoid Valve SVA	10	Combustion Air Flow Metering Orifice
3	Adjustment Valve	11	Flexible Pipe
4	Flexible Pipe	12	Adjustment Valve Ejector Air
5	Flow Metering Orifice	13	Adjustment Valve Ejector Air
6	SELF RECUPERATIVE	14	Flexible Pipe
7	Flue Gas Ejector	15	Burner Control Unit QUAD
8	Combustion Air Valve SVA		



## Sample RECUFIRE in a Single Ended Radiant Tube

1	Manual Shut-Off-Valve for Gas	8	Radiant Tube with Flame Tube
2	Solenoid Valve SVA	9	Combustion Air Valve SVA
3	Adjustment Valve	10	Adjustment Valve
4	Flexible Pipe	11	Air Flow Metering Orifice (integrated)
5	Flow Metering Orifice (integrated)	12	Flexible Pipe
6	SELF RECUPERATIVE	13	Burner Control Unit QUAD
7	Flue Gas Exit with Measuring Tap		



## TECHNICAL DATA

BURNER MODEL		Gas Type (1)	NUMBER OF FINED SEGMENTS	CONNECTED CAPACITY kW (2)	DIMENSIONS (mm)														
SERIES	TYPE				GA	LA	A	B	C	D	E	F(3)	H	K	L	M	O	P	Q
SELF RECUPERATIVE	30	N/L	0/12/16	30	Rp1/2"	Rp1"	91	91	277	85	149,5	540/540/690	199	198	216	18	155	70	60
SELF RECUPERATIVE	30	C/P	0/12/16	25	Rp1/2"	Rp1"	91	91	277	85	150	540/540/690	199	198	216	18	155	70	60
SELF RECUPERATIVE	60	N/L	0/12/16	60	Rp1/2"	Rp1 1/2"	116	116	306	135	171	540/540/690	228	248	266	18	180	84	67
SELF RECUPERATIVE	60	C/P	0/12/16	50	Rp1/2"	Rp1 1/2"	116	116	306	135	171	540/540/690	228	248	266	18	180	84	67
SELF RECUPERATIVE	120	N/L	0/12/16	120	Rp1/2"	Rp1 1/2"	116	116	306	180	171	540/540/690	228	248	266	18	180	84	67
SELF RECUPERATIVE	120	C/P	0/12/16	100	Rp3/4"	Rp1 1/2"	116	116	316	180	171	540/540/690	233	248	266	18	180	84	67
SELF RECUPERATIVE	200	N/L	0/12/16	200	Rp3/4"	Rp 2"	165	165	362	240	207	540/540/690	274	349	361	18	240	108	79
SELF RECUPERATIVE	200	C/P	0/12/16	160	Rp1"	Rp 2"	165	165	362	240	207	540/540/690	274	349	361	18	240	108	79
SELF RECUPERATIVE	300	N/L	0/12/16	300	Rp1"	Rp 2"	165	165	362	275	207	540/540/690	274	349	361	18	240	108	79
SELF RECUPERATIVE	300	C/P	0/12/16	210	Rp1"	Rp 2"	165	165	367	275	207	540/540/690	274	349	361	18	240	108	79

(1) N = NATURAL GAS; L = LPG; C = COG; P = LEAN GAS (2) APPROXIMATE VALUE, = 1,15 (3) SELF RECUPERATIVE BASIC / SELF RECUPERATIVE ADVANCED / SELF RECUPERATIVE ADVANCED PLUS

Subject to modifications; in case of order you will receive a binding dimension drawing.

\*Air inlets of burners are in BSP thread

**WESMAN THERMAL ENGINEERING PROCESSES PVT LTD**  
 WESMAN CENTER, 8 MAYFAIR ROAD, KOLKATA 700019, INDIA  
 TEL: +91 (33) 40020300 FAX: +91 (33) 22908050  
 EMAIL: combustion@wesman.com  
 WEBSITE: www.wesman.com

Information in this document is non-binding and subject to modification

### REGIONAL SALES AND SERVICE OFFICES:

■ MUMBAI (22) 28509521 ■ DELHI NCR (129) 4005791  
 ■ CHENNAI (44) 26561300 ■ BANGALORE (80) 22225756  
 ■ PUNE (20) 46703004 ■ AHMEDABAD (79) 30027355  
 ■ HYDERABAD (40) 66312686 ■ NAGPUR (712) 2523424  
 ■ RAIPUR ■ JAMSHEDPUR ■ LUDHIANA