

GAS BURNERS



WGBC/WGBS



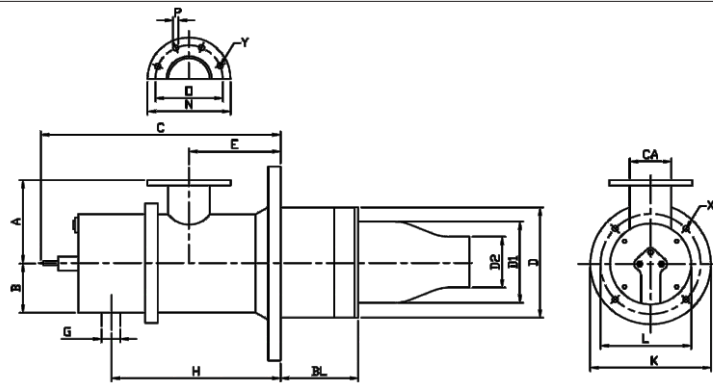
DESCRIPTION

- Gas Burner for heating industrial furnaces and process engineering facilities.
- Power range 15-5000kW
- Wide control range
- Direct electric ignition
- Flame detection with ionizations rod, UV-probe possible
- WGBC version with ceramic flame tube
- WGBC version for burner tile or metallic flame tube
- Various flame exit velocities and flame shapes are possible

TECHNICAL DATA

MODEL	CERAMIC FLAME TUBE			NOM. POWER ¹⁾ , kW		GAS PRESSURE ¹⁾²⁾	AIR PRESSURE ¹⁾	FLAME LENGTH ³⁾ m	VELOCITY LENGTH ^{5), 6)} m/sek
	D1	D2	COLD AIR	PREHEATED AIR ²⁾					
WGBC 50	-20	56	20	16	10	21(7)	21	0,1	100
	-28	56	28	30	20	13(5)	18	0,2	90
	-28	56	28	30	20	19(6)	28	0,15	90
	-35	56	35	35	23	12(4)	18	0,2	70
	-35	56	35	35	23	18(6)	35	0,15	70
WGBC 65	-33	69	33	50	32	16(5)	18	0,25	110
	-33	69	33	50	32	28(10)	38	0,2	110
	-40	69	40	60	40	18(6)	20	0,3	90
	-40	69	40	60	40	28(10)	30	0,25	90
	-48	69	48	70	45	18(6)	20	0,4	70
	-48	69	48	70	45	30(11)	35	0,3	70
WGBC 80	-33	87	33	60	40	19(7)	24	0,35	130
	-40	87	40	90	58	21(7)	28	0,4	135
	-40	87	40	90	58	32(11)	35	0,35	135
	-50	87	50	105	68	19(6)	23	0,45	100
	-50	87	50	105	68	24(8)	20	0,4	100
	-64	87	64	120	78	18(6)	18	0,5	70
WGBC 100	-64	87	64	120	78	31(11)	22	0,45	70
	-65	104	65	160	104	22(80)	20	0,6	90
	-65	104	65	160	104	28(10)	30	0,5	90
	-82	104	82	180	117	19(7)	18	0,6	70
	-82	104	82	180	117	28(10)	28	0,5	70
WGBC 125	-66	127	66	200	130	21(7)	20	0,6	110
	-66	127	66	200	130	29(10)	30	0,5	110
	-75	127	75	230	150	23(8)	21	0,9	100
	-75	127	75	230	150	28(10)	30	0,6	100
	-100	127	100	260	170	28(26)	19	1,1	60
	-100	127	100	260	170	29(10)	24	0,6	60
WGBC 140	-70	142	70	270	175	26(9)	24	0,6	130
	-70	142	70	270	175	29(10)	27	0,5	130
	-85	142	85	320	208	29(10)	22	0,6	105
	-85	142	85	320	208	28(10)	22	0,5	105
	-120	142	120	360	235	28(10)	18	0,8	60
	-120	142	120	360	235	28(10)	15	0,65	60
	-127	142	127	450	415	43(15)	32	1,1	70
WGBC 165	-127	142	127	450	415	33(12)	18	0,8	70
	-154	171	154	600	390	29(10)	17	1,5	60
WGBC 200	-154	171	154	600	390	30(11)	42	1,0	60
	-180	197	180	1000	650	31(11)	25	2,0	75
WGBC 200	-180	197	180	1000	650	44(16)	28	1,3	75

(1) Natural gas H during burn-off L-burner: cylindrical flame tube, K-burner: conical burner tile (2) at indicated air pressure, gas pressure for =1,1 (3) value in brackets for preheated air (450°C) (4) visible flame (5) exit velocity of the reaction gases in the burner outlet (6) air preheating on request



TECHNICAL DATA

BURNER MODEL		NOMINAL POWER	DIMENSIONS (mm)															APPROX WEIGHT (kg)				
SERIES	TYPE		G	CA	A	B	C	D	D1	D2	E	BL	H	K	L	M	N		O	P	X	Y
WGBC	50	DEPENDENT ON THE USED CERAMIC TUBE, SEE TABLE "TECHNICAL DATA WGBC"	Rp 1/2"	Rp 1 1/2"	50	38	235	76	55	SEE TECHNICAL DATA WGBC	73	SEE BURNER LENGTHS WGBC	149	181	151	12	-	-	-	4	-	5
WGBC	65		Rp 3/4"	Rp 1 1/2"	62	48	177	90	69		73		156	195	165	12	-	-	-	4	-	7
WGBC	80		Rp 3/4"	Rp 2"	112	55	190	115	86		90		172	240	210	14	-	-	-	4	-	11
WGBC	100		Rp 1"	Rp 2"	100	60	16	127	104		103		185	240	200	14	-	-	-	4	-	12
WGBC	125		Rp 1 1/2"	Rp 65	135	73	355	155	127		120		251	270	240	14	185	145	18	4	4	20
WGBC	140		Rp 1 1/2"	DN 80	150	80	380	168	142		130		270	300	265	14	200	160	18	4	8	26
WGBC	165		Rp 1 1/2"	DN 100	213	52	360	171	-		150		360	285	240	14	220	180	18	4	8	25
WGBC	200		Rp 2"	DN 150	220	75	500	197	-		220		470	330	295	22	285	240	22	8	8	35

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

TECHNICAL DATA

BURNER MODEL	FLAME SHAPE ¹⁾	NOM. POWER ²⁾ kW		GAS PRESSURE ^{2) 4)}	AIR PRESSURE ²⁾	FLAME LENGTH ⁵⁾	VELOCITY ^{5) 6) 7)} m/sec
		COLD AIR	PREHEATED AIR				
WGBS 40	L	20	-	18	15	0,15	30
WGBS 50	L	40	26	24 (9)	36	0,3	40
WGBS 65	L	90	58	18 (6)	23	0,5	55
WGBS 80	L	150	97	20 (8)	27	0,8	60
WGBS100	L	250	163	28 (10)	40	1,0	60
WGBS 125	L	320	208	28 (10)	30	1,2	50
WGBS 140	L	450	290	37 (13)	32	1,3	60
WGBS 165	L	600	390	28 (10)	24	1,5	55
WGBS 200	L	1000	650	29 (10)	39	2,0	60
WGBS 240	L	1500	n	22	15	2,5	65
WGBS 270	L	3000	n	65	50	2,7	100
WGBS 320	L	5000	n	50	50	3,8	120

- 1) L- Longer flame shape.
- 2) Natural gas H during burn off. I-burner, cylindrical flame tube, K-burner, conical burner tile
- 3) At indicated air pressure, gas pressure for n=1, 1
- 4) Value in brackets for preheated air (450°C)
- 5) Visible flame
- 6) Exit velocity of the reaction gases in the burner outlet
- 7) Air preheating on request

All the information given in this table approximate and subject to modifications.

1. The position of the burner head is fixed at BK= BL + 35.

2. The burner length corresponds to the length of the metallic extension of the burner casing. The ceramic flame tubes have a standard length of 300 mm (deviations on request). The burner length may also be 0 (ex: WGBC 100-1L-0/35).

WESMAN industrial burners WGBS and WGBC are available in various lengths. The correct position of the gas-air mixing device of the burner is crucial for achieving optimal combustion characteristics with different lengths. Consequently the position of the burner head must first be determined; as a second step the total length may be specified.

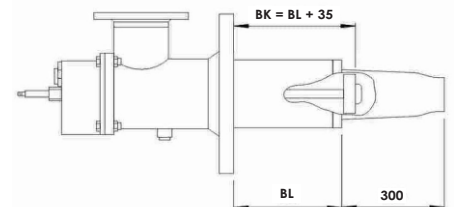
1. For determining the position of the burner head BK, the wall thickness W must be rounded up to the next higher value with 35 or 85 as last digits (e.g.: W=250 mm, BK=285 mm).

2. Pay attention to the required flame shape!

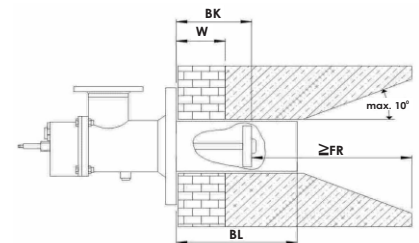
- short or low flame: BL=BK + 15 mm
- normal (long) flame: BL=BK + 65 mm (for example: WGBS 140-1R-300/285)

*Air inlets of burners are in BSP thread

BURNER LENGTHS WGBC



BURNER LENGTHS WGBS



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