



Babcock Wanson UK

CNIM Group

Energy made to Measure



WDF DIRECT-FIRED AIR HEATERS

- **DIRECTIONAL AIR DISCHARGE OUTLETS OR FULLY DUCTED**

Two or three swivelling discharge outlets with adjustable louvres

- **DOUBLE-SKIN ALL STEEL CONSTRUCTION**

Steel inner casing forms a reflective shield between the heating surfaces and the exterior panels

- **BABCOCK WANSON LINE TYPE BURNER**

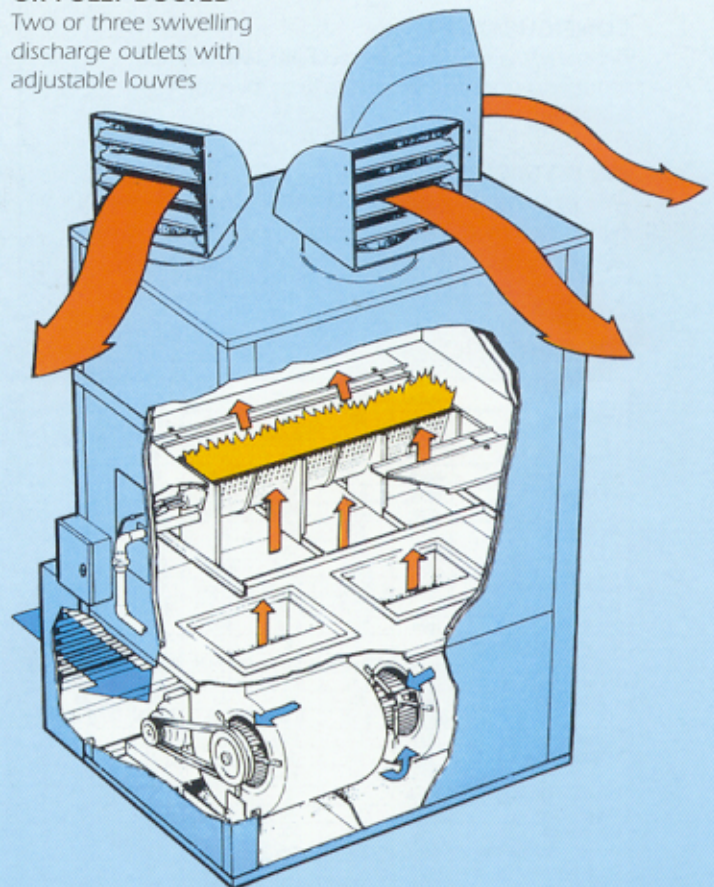
Excellent flame stability and construction quality

- **FRESH AIR INLET**

Ensures well ventilated environment

- **FAN UNIT**

Only major moving part
Quiet in operation



DIRECT GAS FIRED WARM AIR SPACE HEATER

Designed and constructed to International Standard EN 525 and certified to the statutory European Gas Appliance Directive. Certificate Number BG/EC - 87/96/182

Fully automatic and suitable for remote operation by thermostat, time clock, optimiser or BMS telemetry.

With no stack losses the efficiency approaches 100%, thus providing low cost gas fired warm air comfort conditions for industrial and commercial buildings.

High temperature variants available for process applications.



WDF DIRECT FIRED AIR HEATERS

THE BURNER

The Babcock Wanson line burner gives excellent flame stability and with no moving parts, maintenance needs are negligible. It operates on the forced draught principle and is sited centrally in the main air flow. Standard operation is High/Low. Modulating upon request.

FRESH AIR INLET

One side of the unit must be positively connected to an uninterrupted fresh air supply. If approved partial recirculation may also be achieved but the exact mixture of fresh and circulated air must be such that the environmental standards are met in accordance with BS6230 : 1991 requirements.

THE FAN UNIT

The high capacity centrifugal fan(s) ensure a positive distribution of air into the building to be heated.

MAINTENANCE

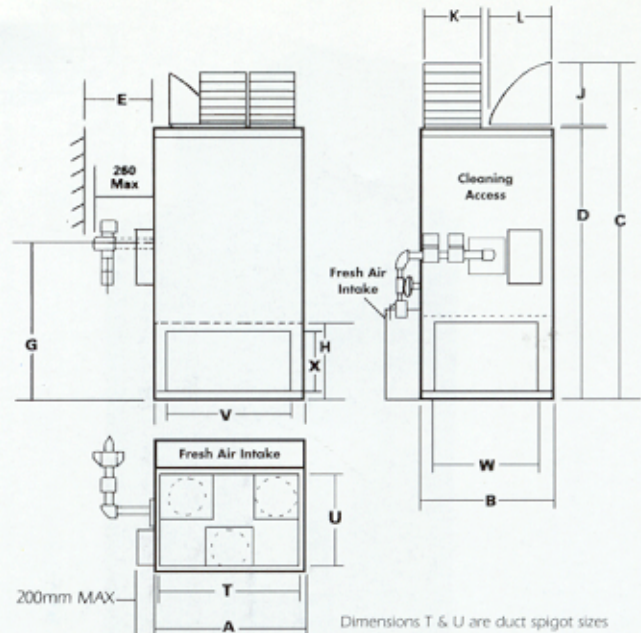
All components are easy to remove, simple to replace, readily available and where required, can be cleaned in minutes.

CONFIGURATION

Babcock Wanson WDF heaters are available for mounting horizontally, vertically or inverted to suit location.

AIR DISTRIBUTION

Free blowing through directional air discharge swivel outlets or fully ducted. Fan motor sizes are for swivel outlet models.



DIMENSIONS

Unit	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200
A	1110	1110	1110	1310	1410	1410	1410	1410	1510	1510	1510	1510	2052	2052	2052
B	790	790	790	790	1010	1010	1010	1010	1160	1160	1160	1372	1372	1372	1372
C	2255	2255	2255	2255	2590	2590	2590	2590	2770	2770	2770	3390	3390	3390	3390
D	1875	1875	1875	1875	2160	2160	2160	2160	2260	2260	2260	2770	2770	2770	2770
E	890	950	950	1240	1290	1290	1290	1290	1465	1465	1465	1860	1860	1860	1860
G	1045	1045	1045	1045	1170	1170	1170	1170	1195	1195	1195	1400	1400	1400	1400
H	650	650	650	650	700	700	700	700	700	700	700	850	850	850	850
J	380	380	430	380	430	430	430	430	500	500	500	560	560	560	560
K	380	380	430	380	430	430	430	430	500	500	500	560	560	560	560
L	414	414	464	414	464	464	464	464	539	539	539	610	610	610	610
T	1030	1030	1030	1230	1330	1330	1330	1330	1430	1430	1430	1973	1973	1973	1973
U	710	710	710	710	930	930	930	930	1080	1080	1080	1293	1293	1293	1293
V	850	850	850	1045	1150	1150	1150	1150	1250	1250	1250	1800	1800	1800	1800
W	670	670	670	670	885	885	885	885	1040	1040	1040	1250	1250	1250	1250
X	575	575	575	575	625	625	625	625	625	625	625	775	775	775	775

SPECIFICATIONS

	Unit	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200
Unit Rating	kW	59	88	117	146	176	205	235	264	293	352	410	469	528	586	645
	Btu/h	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000	1,000,000	1,200,000	1,400,000	1,600,000	2,000,000	2,200,000	2,200,000
Temperature Rise	°C	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Air Flow Rate	kg/s	1.0	1.5	2.1	2.6	3.1	3.6	4.1	4.6	5.2	6.2	7.2	8.3	9.3	10.3	11.4
Air Intake at 15°C	m³/s	0.9	1.3	1.75	2.2	2.6	3.1	3.6	3.9	4.4	5.3	6.1	7.0	7.9	8.8	9.7
	cfm	1860	2790	3720	4650	5580	6510	7440	8370	9300	11200	13000	14900	16700	18600	20500
Air Output	°C	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
	m³/s	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.4	5.0	5.9	6.9	7.9	8.9	9.9	10.9
	cfm	2090	3130	4180	5220	6270	7310	8360	9400	10,500	12,500	14,600	16,700	18,800	20,900	23,000
Fan Motor 1500 rpm	kW	0.55(3ph)	1.1(3ph)	1.5(3ph)	1.1(3ph)	1.5(3ph)	2.2(3ph)	2.2(3ph)	3.0(3ph)	3.0(3ph)	4.0(3ph)	5.5(3ph)	7.5(3ph)	11.0(3ph)	11.0(3ph)	15.0(3ph)
Main Air Fans		BDC321	BDC321	BDC321	BPC321	BPC381	BPC381	BPC381	BPC381	BPC381	BPC381	BPC381	BPC457	BPC457	BPC457	BPC457
Fan Speed	rpm	750	840	800	800	850	710	730	750	750	780	880	700	740	800	840
No. of Swivel Outlets		2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
Swivel size	mm	375x375	375x375	430x430	375x375	430x430	430x430	430x430	430x430	500x500	500x500	500x500	630x590	630x590	630x590	630x590
Swivel Free Area	m²	0.12	0.12	0.16	0.12	0.16	0.16	0.16	0.16	0.23	0.23	0.23	0.33	0.33	0.33	0.33
Δ P Swivels	Pa	25	40	42	50	42	55	72	100	85	110	125	75	90	110	130
	in. W.G.	0.10	0.16	0.17	0.20	0.17	0.22	0.29	0.41	0.35	0.45	0.50	0.30	0.36	0.45	0.52
Velocity at Swivel	m/s	4.0	6.0	6.0	6.6	6.0	7.0	7.9	8.9	7.0	8.3	9.8	7.8	8.7	9.9	10.7
Effective Throw	m	15	18	21	21	24	24	25	30	30	33	33	43	43	45	52
	ft.	50	60	70	70	75	75	80	100	100	100	110	110	140	150	170
Electrical Loading	Amps	2	3	4	3	4	5	5	7	7	9	12	12	15	20	30
Supply Fuse	Amps	10	16	16	16	16	20	20	25	25	32	35	40	32	32	35
Net Weight	kg	190	200	210	270	330	340	350	355	480	490	520	680	690	720	730
Burner - Natural Gas	Type	250	375	375	750	750	750	750	1000	1000	1000	1250	1250	1500	1500	1500
Consumption Nat. Gas	m³/h	5.9	9.0	12	15	18	20	24	27	30	36	42	48	54	59	65
1035 Btu/ft³	ft³/h	210	320	420	530	640	740	850	950	1060	1275	1480	1700	1900	2100	2300
Minimum Gas Supply	mbar	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Pressure	in. W.G.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Connection Size	BSP	¾"	¾"	¾"	¾"	¾"	1"	1"	1"	1"	1½"	1½"	1½"	2"	2"	2"
Consumption Propane	m³/h	2.5	3.7	4.9	6.2	7.5	8.7	10	11	12	15	17	20	22	24	27
2500 Btu/ft³	ft³/h	87	132	174	220	265	306	350	395	440	530	610	700	790	870	950
Supply Pressure	mbar	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	in. W.G.	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Connection Size(Prop.)	BSP	¾"	¾"	¾"	¾"	¾"	¾"	1"	1"	1"	1"	1"	1½"	1½"	1½"	1½"

Ducted versions standard E.S.P. 0.5 in wg & 1 in wg. Others available on request. Specification and performance data may be subject to alteration without notice.

Natural Gas G20 GCV 37.8 MJ/m³
Propane gas G31 GCV 95.7 MJ/m³



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