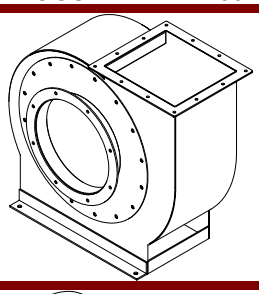
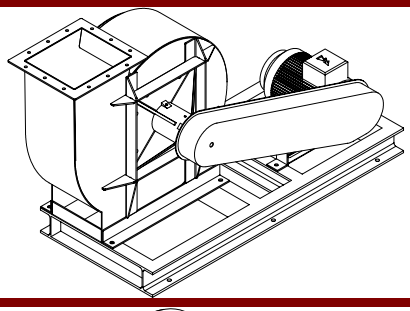
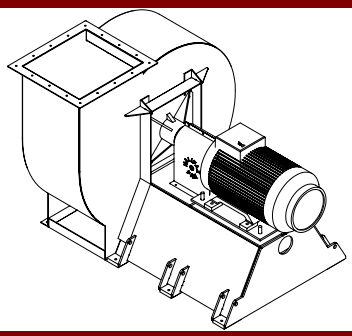
Paddle blade fan range

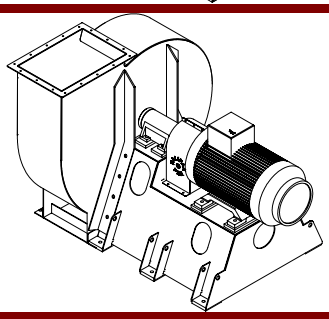
Typical driving arrangements and dimensions

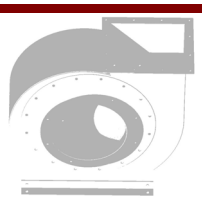
CATALOGUE REF: - PB002-603

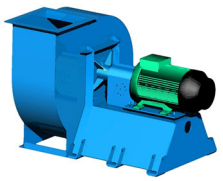


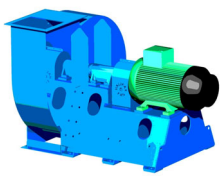


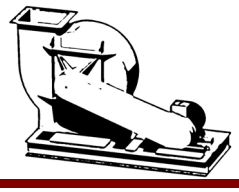












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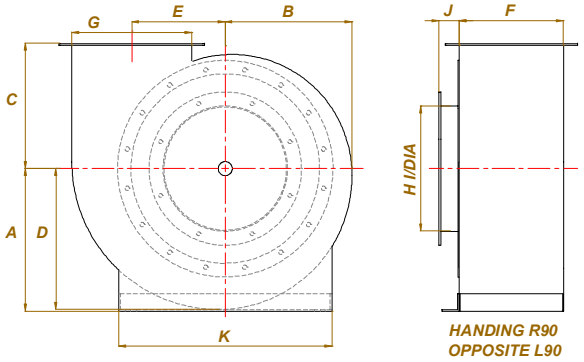
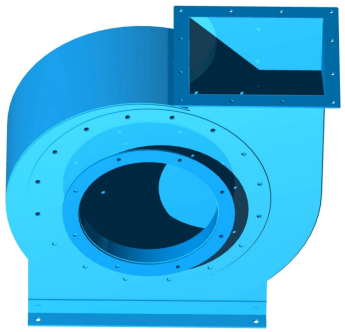
FM 00701

THE HALIFAX PADDLE BLADE FAN

Fan casing dimensions

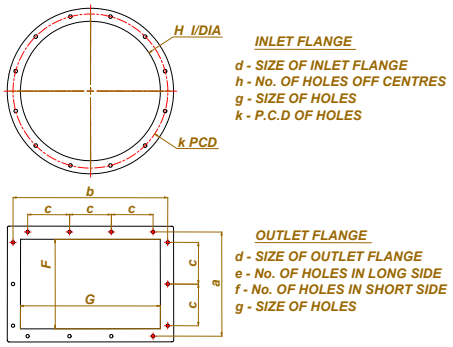
FAN SIZE	A R90	A R135	A R180	A R225	A R270	A R0	A R45	B	C	D	E	F	G	H	J	K
12	254	241	229	216	203	305	267	210	210	235	165	171	191	203	38	374
15	318	305	292	275	254	368	330	266	260	295	203	216	241	254	50	444
18	368	356	343	305	305	432	381	311	311	343	229	254	292	305	50	520
21	406	406	381	381	343	483	432	360	356	393	267	298	337	356	50	610
24	483	457	432	432	381	559	508	419	406	464	318	343	381	406	64	712
27	533	508	483	458	432	622	572	459	445	509	343	381	432	457	64	788
30	610	584	546	546	483	711	635	520	495	578	394	425	483	508	76	890
33	648	622	584	559	521	762	686	569	533	623	425	464	521	559	76	966
36	711	686	648	610	559	838	749	616	584	686	476	508	559	610	76	1066
42	838	800	762	715	660	978	889	724	699	806	552	597	673	711	100	1270
48	965	914	864	825	762	1118	1016	826	775	921	635	686	762	813	100	1422
54	1067	1003	965	914	838	1219	1105	914	864	1016	686	762	864	914	100	1626
60	1194	1143	1092	1022	940	1372	1245	1035	978	1149	787	838	953	1016	125	1818
66	1397	1325	1260	1188	1117	1678	1469	1170	1144	1298	893	927	1060	1118	125	1924



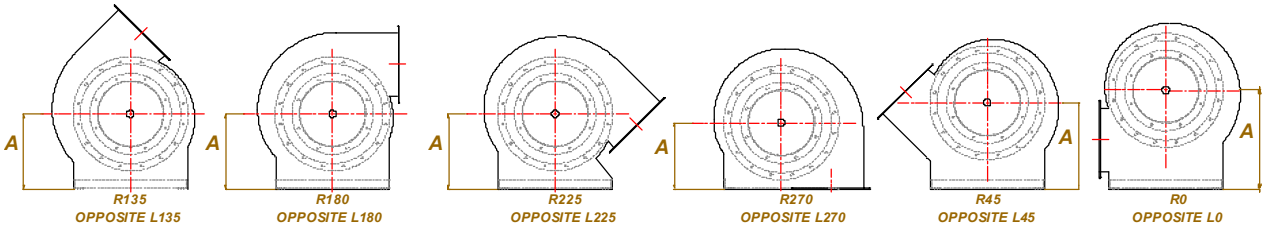


Flange dimensions

FAN SIZE	a	b	c	d	e	f	g	h	k
12	216	235	117.5	40	3	1	11	6	248
15	260	286	89	40	4	2	11	6	298
18	298	337	82.5	40	5	3	11	8	349
21	343	381	127	40	4	2	11	8	400
24	387	425	101.5	40	5	3	11	12	451
27	425	476	114.5	40	5	3	11	12	502
30	483	540	152.5	50	4	3	14	12	565
33	521	578	152.5	50	4	3	14	12	616
36	565	616	152.5	50	5	3	14	16	667
42	654	730	152.5	50	5	5	14	16	768
48	743	819	165	50	5	5	14	24	870
54	819	921	152.5	50	6	6	14	24	972
60	908	1022	152.5	70	7	6	14	24	1086
66	997	1111	152.5	70	7	7	17	27	1187

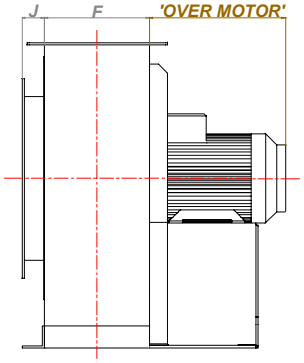


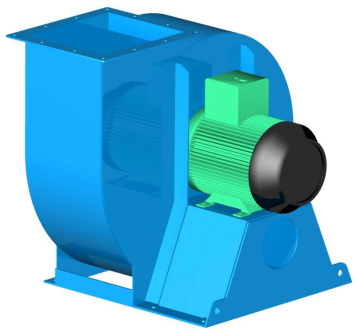
Handings shown from drive side



Arrangement No.3 specific dimensions

FAN SIZE	TYPICAL MOTOR SIZE	SIZE OVER MOTOR	COOLING DISC (ADD TO 'OVER MOTOR' IF REQ`D)
12	D80	255	ADD 50
15	D90	272	ADD 50
18	D100	308	ADD 50
21	D112	321	ADD 50
24	D132	371	ADD 50
27	D160	495	ADD 70
30	D160	495	ADD 70
33	D180	557	ADD 70
36	D200	700	ADD 70





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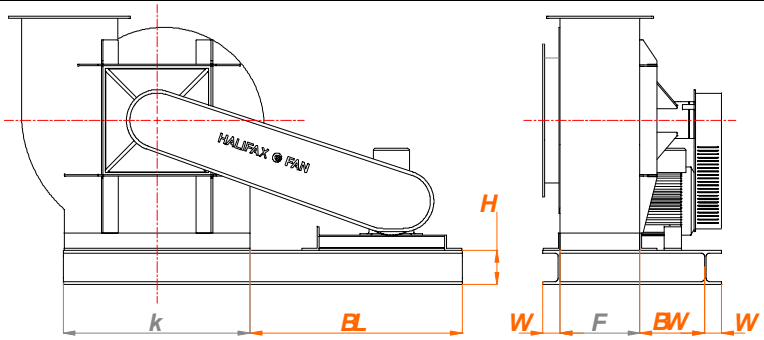
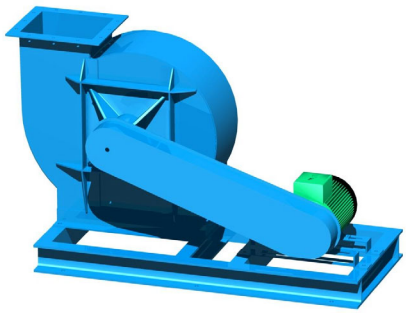
Use these dimensions combined with the Casing dimensions to give overall fan sizes for your chosen driving arrangement

Typical dimensions for driving arrangements 1,2a,1/3 and 2a/3

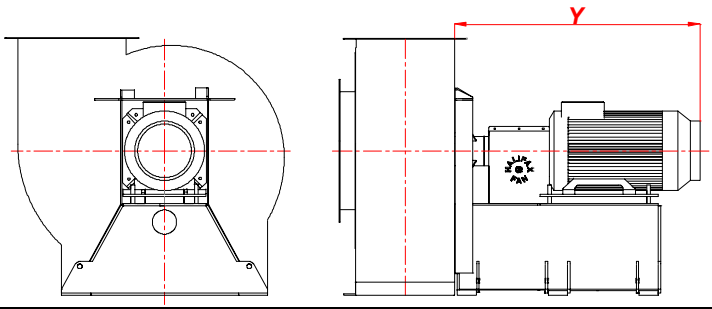
SPECIFICATION				ARRANGEMENT No.1 SPECIFIC DIMENSIONS				ARRANGEMENT 1/3 SPECIFIC	ARRANGEMENT 2A/3 SPECIFIC	HIGH TEMP. EXTRAS	
FAN SIZE	BEARING UNIT		TYPICAL MOTOR SIZE	TYPICAL BASEFRAME SIZES				(Y)	(Z)	FOR EXTRAS ADD TO BW,Y OR Z	
	ARR. No.1	ARR. No.2A		CHANNEL HEIGHT (H)	CHANNEL WIDTH (W)	BL	BW	DIMENSION OVER BEARING UNIT AND MOTOR	DIMENSION OVER BEARING UNIT AND MOTOR	COOLING DISC	COOLING DISC & PLUG UNIT
12	V2		D80	76	38	440	165	480		ADD 40	ADD 75
15	V2		D90			440	165	505		ADD 40	ADD 75
18	V3		D112			680	220	610		ADD 40	ADD 75
	V4		D160	100	50	750	265	870		ADD 50	ADD 75
21	V3		D132			615	210	670		ADD 50	ADD 75
	V4		D160			750	265	870		ADD 50	ADD 75
		M6	D160			750	420		1060	ADD 50	ADD 75
24	V4		D160			750	265	870		ADD 50	ADD 75
		M6	D160			750	420		1060	ADD 50	ADD 75
27	V5		D160	125	65	775	275	905		ADD 50	ADD 75
	V6		D180			775	250	970		ADD 50	ADD 75
		M6	D180			775	420		1120	ADD 50	ADD 75
30 - 36	V6		D180			775	290	970		ADD 50	ADD 75
		M6	D200			1040	450		1275	ADD 50	ADD 75
		M7	D225			1040	500		1430	ADD 70	ADD 100
		M8	D250			1200	550		1620	ADD 70	ADD 100
42		M6	D200	150	75	1040	435		1275	ADD 50	ADD 100
		M7	D225			1040	490		1430	ADD 70	ADD 100
		M8	D250			1200	540		1620	ADD 70	ADD 100
48		M7	D225			1040	490		1430	ADD 70	ADD 100
		M8	D250			1200	540		1620	ADD 70	ADD 100
		M9	D250			1200	585		1665	ADD 70	ADD 100
		M11	D280	200	90	1200	600		1805	ADD 70	ADD 100
54 - 60		M9	D250			1200	610		1665	ADD 70	ADD 100
		M11	D280			1200	630		1805	ADD 70	ADD 100
		M12	D315			1540	740		2085	ADD 100	ADD 125

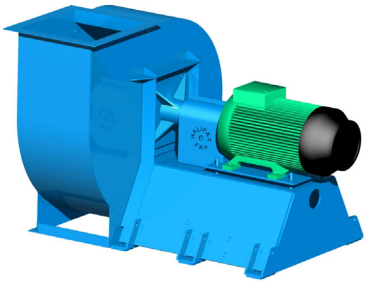
Driving arrangement No.1 and No.2a



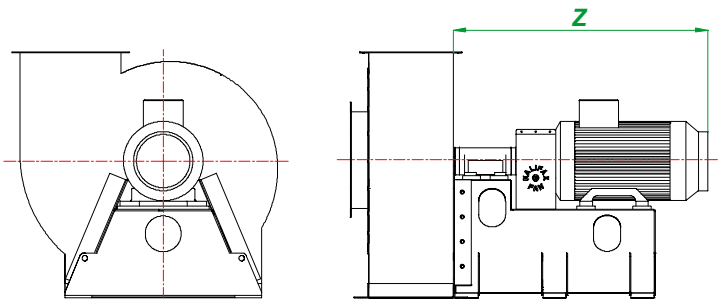


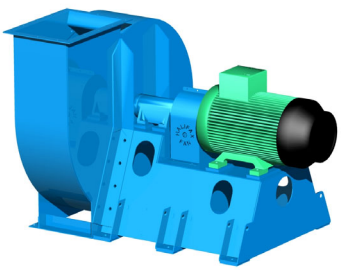
Driving arrangement No.1/3





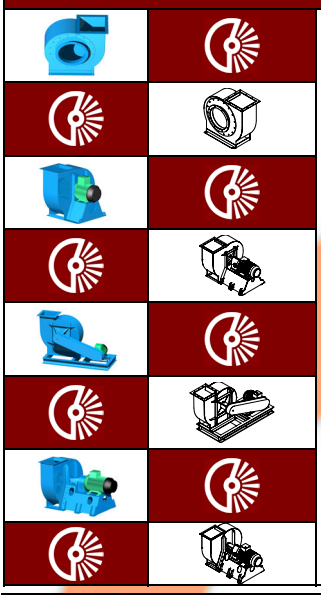
Driving arrangement No.2a/3





Typical dimensions only, contact Halifax Fan for full arrangement drawing.

The Paddle Blade fan range



The Halifax Paddle Blade range offers the ability to handle comparatively large amounts of product and dust with a centrifugal fan.

The simplistic radial blade impeller design is easily cleaned and maintained.

Design options to enhance the range include conveyors, paper trim choppers, special impeller width designs for different volume/pressure ratios and wear plates and scroll liners for severe abrasive applications.

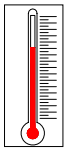
- ***Developed for movement of large amounts of product / dust***
- ***Simplistic easy to clean design.***
- ***Many design options available for cutting blades and extreme abrasive conditions.***

Performance rating

FM 00701

All Halifax Fan performance ratings are a result of performance tests to BS848 Part 1: 1980 type D ducted inlet and outlet tests. They are also regularly audit tested in accordance with our quality assurance system, which conforms to ISO 9001.

Temperature range



Standard Halifax Paddle Blade Fans normally serve applications at temperatures up to 70°C. Higher temperature requirements are effectively catered for by the incorporation of carefully designed modifications to protect the fan bearings. Fans operating between 70°C and 230°C are supplied with a cooling disc fitted to the fan shaft between the fan case and the bearing unit.
For operating temperatures between 230°C and 315°C a cooling disc is fitted in addition to fibreglass filled plug unit located between the fan side plate and bearing unit. The fabrication techniques used in the construction of these impellers are modified to ensure operational stability in the high temperature environment.

- ***Standard Fan operating temperatures up to 70°C.***
- ***Fans operating between 70°C and 230°C require a cooling disc.***
- ***Fans operating between 230°C and 315°C require a plug unit and cooling disc.***
- ***For fans operating above 315°C contact Halifax Fan Ltd.***

Construction details

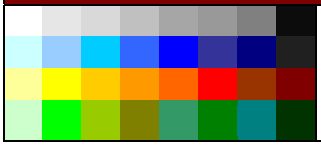
Casing

The fan casings are of an all welded construction and substantially braced for extra rigidity. Casings up to and including size 39 are made in one piece. The impellers can be removed from the inlet side after taking off the front plate. Standard sizes 42 and larger are made in two pieces and these pieces are flanged, drilled and bolted together (known as a split case). Above a size 60, the casings are in three parts with the top section being divided.

Impeller

The impellers are dynamically and statically balanced in accordance with BS. 6861: Part 1: 1987 and ISO 1940/1:1986. They are precision built components made up of six flat radial and reinforced blades welded to the centre boss. The precision laser cut blades and support gussets ensure utmost accuracy in the angle and position of blades. The centre boss is precision bored with a British standard keyway to suit.

Finish



Great care is taken with the protective finish of Halifax fans and their appearance. Fans selected for normal temperature conditions are powder coated RAL5015 (certain other colours available at no extra cost). Powder coating offers significant advantages over liquid paint finishes, as the process provides a harder, more durable high quality finish, giving added protection. Special finishes are also supplied to suit unusual operating conditions or customer requirements.

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