

Holmes

positive displacement air blowers

HR662 18" to 22" gear diameter

Specification

Cast iron cylinder, headplates and baseplate. Forged steel shafts pressed into Meehanite impellers, dynamically balanced. Impellers are located at the gear end of the blower. Steel spur gears of special design run in a totally enclosed gearbox—the gears are lubricated by means of a controlled splash lubrication system which eliminates the need for an oil pump. Double row spherical roller main bearings—grease lubricated at drive end, splash lubricated at gear end. Where required, a thermostatically controlled heater can be incorporated so that one grade of oil only can be used throughout the year regardless of climatic conditions. The blower is constructed with air gaps at each end of the cylinder to prevent oil or grease entering the air stream.

Direction of Flow

Standard blowers are built with top inlet and bottom discharge with the right hand

shaft extended for the drive. The drive shaft runs in a clockwise direction.

Duty

The capacity table gives details of capacities and the maximum allowable pressure rise for blowers working with free air inlet conditions at 60°F. (15°C.) and 30" (760 mm) Hg barometer. The figures listed are subject to variation due to manufacturing changes. It is desirable therefore that final figures be obtained from Holmes. Machines can be used as air exhausters at reduced capacity. Under vacuum conditions the pressure rise is restricted on account of the resultant higher temperature rise.

Ancillary Equipment

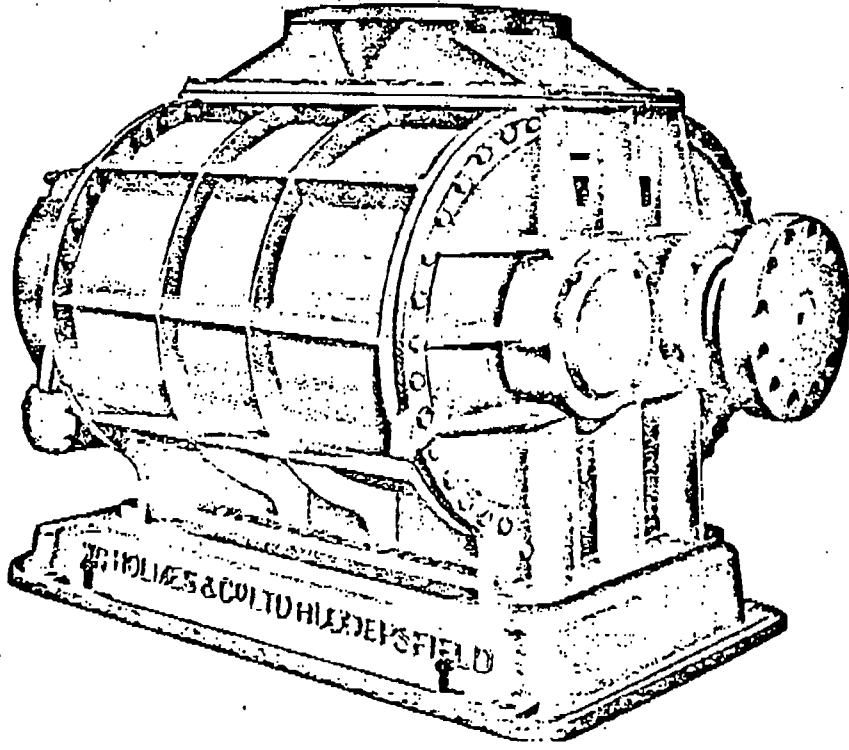
Pressure Switch: A pressure operated electrical switch designed to stop the blower in the event of an excessive pressure developing on the outlet should always be fitted. The high pressure could be caused by a blockage or an inadvertently closed valve.

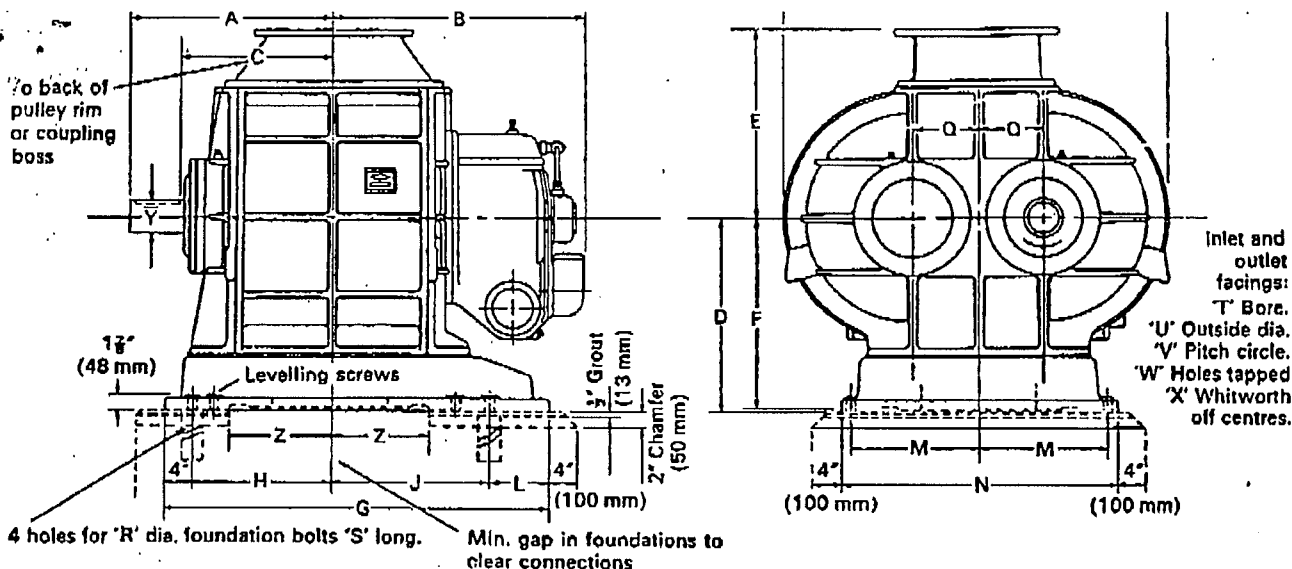
Relief Valve: A relief valve is recommended (pressure or vacuum depending on duty) to cover occasional surging in the system under operating conditions.

Filter/Silencer: A combined inlet filter/silencer of adequate capacity should be fitted to the intake of a blower. A discharge silencer is essential for an air exhauster.

Vacuum Indicator: A visual or audible vacuum indicator (15" w.g. maximum vacuum) should be placed between the air filter and the blower inlet to give warning when the filter requires cleaning. If the filter is not kept clean the blower may seize due to excessive 'slip' causing high rotor temperatures. This could result in serious damage to the blower.

Note: Full details on the correct installation of ancillary equipment are given in Service Manual Supplement Sheet No. 3.





Size No.	A In	B In	C In	D In	E In	F In	G In	H In	J In	K In	L In	M In	N In	P In	Q In	R In	S In	T In	U In	V In	W In	X In	Y In	Z In
1827	28½	33½	21½	27½	25½	26½	53½	19	22½	4	8	17½	37½	53½	9	1½	27	16	22½	20½	12	½	4½	14
1836	33	38½	25½	27½	25½	26½	62½	23½	26½	4	8	17½	37½	53½	9	1½	27	18	26½	23	12	½	4½	15
1842	36	41½	28½	27½	25½	26½	68½	26½	29½	4	8	17½	37½	53½	9	1½	27	18	26½	23	12	½	4½	15
2040	35	40½	28½	32½	28	32	70½	25	30½	5	10	19½	42½	59	10	1½	30	20"	27½	25½	12	½	5	16
2050	40	45½	33½	32½	28	32	80½	30	35½	5	10	19½	42½	59	10	1½	30	24	32½	29½	12	1	5	19
2238	35½	41½	28½	33	30½	32½	70½	24½	30½	5	10	21	45	65	11	1½	30	24	32½	29½	12	1	5½	19
2250	41½	47½	34½	33	30½	32½	82½	30½	36½	5	10	21	45	65	11	1½	30	24	32½	29½	12	1	5½	19
2260	46½	52½	39½	33	30½	32½	92½	35½	41½	5	10	21	45	65	11	1½	30	24	32½	29½	12	1	5½	19

Approximate Shipping Specification

Size No.	Net Weight lb	Gross Weight lb	Crate Volume ft³
1827	6600	7640	160
1836	7750	8600	180
1842	8520	9250	195
2040	9860	10650	216
2050	10980	11875	255
2238	11900	12700	270
2250	13650	14640	308
2260	15120	16250	338

Drive Shaft Details

Y in	Shaft Limit in	Keyway in	Recommended Coupling Bore In
4½	4-6266/	1-250/1-248 wide	4-6235/
	4-6255	0-524/0-518 deep on C/L	4-6255
5	5-0018/	1-250/1-248 wide	4-9985/
	5-0005	0-524/0-518 deep on C/L	5-0005
5½	5-3766	1-500/1-498 wide	5-3733/
	5-3755	0-605/0-599 deep on C/L	5-3755

Capacities at listed pressures and speeds

Size No.	Speed rpm	3 psig		4 psig		5 psig		5.85 psig		6 psig		6.5 psig		7 psig		8 psig		9 psig		9.25 psig		10.5 psig	
		Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp	Vol. cfm	hp
2260	850	24500	395	24300	535	24000	655	23800	755														
	585	22000	355	21600	480	21400	590	21100	680														
	420	15250	255	14900	340	14650	420	14400	490														
2050	720	18400	290	18200	380	18000	485	17700	580	17600	625												
	585	14750	230	14500	310	14350	390	14200	470	14100	510												
	420	10300	182	10150	220	10000	280	9850	335	9750	365												
1842	800	13850	220	13650	287	13520	364	13375	433		13200	505											
	725	12500	198	12300	260	12170	328	12030	392		11900	458											
	585	9510	158	9740	210	9610	262	9490	315		9360	368											
	420	6910	113	6740	150	6630	188	6500	225														
2250	830	20800	320	20300	430	20100	548	19900	650	19700	760			19700	760								
	585	18400	290	18100	385	17900	490	17700	590	17500	680			17500	680								
	420	12800	205	12500	275	12300	350	12100	420	11900	490			11900	490								
2040	720	14680	232	14500	310	14300	382	14200	460	13990	530	13800	610										
	585	11770	190	11575	250	11400	310	11225	370	11025	430	10850	495										
	420	8225	135	8000	180	7850	220	7700	262	7500	310	7300	353										
1836	800	11800	185	11650	248	11550	310	11450	372		11300	435	11250	495									
	725	10660	168	10510	225	10400	280	10290	337		10160	393	10050	450									
	585	8490	135	8350	190	8220	225	8120	271		8000	318	7900	380									
	420	5940	98	5810	130	5680	160	5560	195		5470	228	5360	257									
2238	850	15750	242	15600	330	15475	410	15300	490	15200	570	15100	680							14800	760		
	585	14100	218	13950	294	13810	365	13650	440	13550	512	13450	590							13220	680		
	420	9890	152	9750	208	9650	258	9520	312	9420	365	9320	420							9100	482		
1827	800	8980	143	8860	187	8760	233	8700	279		8600	325	8550	372	8500	420						8400	485
	725	8050	129	7950	170	7850	210	7790	251		7700	293	7650	337	7600	380						7500	437
	585	6380	102	6270	138	6170	170	6090	202		6010	235	5950	271	5900	304						5810	350
	420	4400	71	4300	100	4180	121	4100	144		4020	168	3960	194	3900	216						3810	250



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1836 HOLMES POSITIVE DISPLACEMENT

AIR BLOWER

