



mb air systems ltd

hibon

Bareshaft Blowers

S2H Two Lobe Series



IR *Ingersoll Rand*
Industrial Technologies

mb air systems ltd



S2H Series Blowers

Range

Range of positive displacement blowers featuring two lobes for use in compression and vacuum for air or neutral gases.

Pressure up to 1 bar (14.5 psig) – Vacuum up to 540 mbar (16 "Hg)

S2H Series flow range by model:

S2H 22 to S2H 52 (BSP), S2H 22N to S2H 53N (NPT)
From 15 m³/h (9 cfm) to 1590 m³/h (935 cfm)

Experience and know how

With almost a century of experience in the manufacture and the sale of rotary positive displacement blowers, Ingersoll Rand has a large range of two-lobe blowers specially designed to meet the demanding requirements of standard air or neutral gas applications: efficiency, competitiveness, and robustness.

This know-how ensures that the entire range of standard blowers benefits from the largest technological developments, allowing the user to obtain an optimum solution best suited to his needs..

Benefits

- High mechanical and volumetric efficiency
- Reliability in operation
- Air cooled, oil free operation
- Fast and easy maintenance
- Dynamically balanced impellers
- Detachable feet allow for vertical or horizontal flow
- Clockwise or counter-clockwise rotation
- Direct drive or V-belt drive available throughout the operating range

Application

Thousands of international installations of Ingersoll Rand blowers are proof of their reliability and strength, providing universal solutions in wide-ranging applications such as:

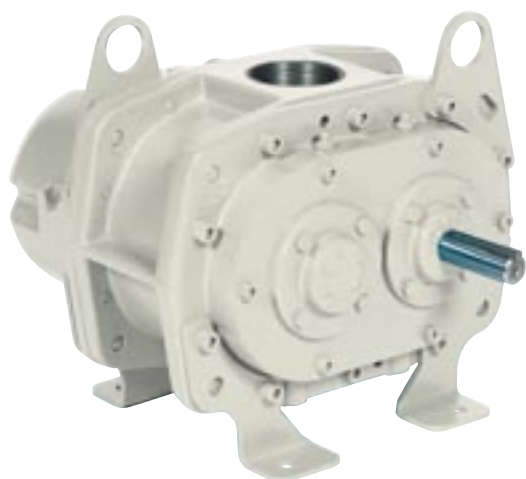
- Water treatment
- Pneumatic conveying
- Combustion Air
- Centralized Cleaning
- Fluidization
- Homogenization
- Gas Compression



Performance

S2H22 to S2H53

Model	Maximum Inlet Flow		Max. Differential pressure		Max. Vaccum	
	m ³ /h	cfm	mbar	psig	mbar	"Hg
S2H22	120	70	825	12	500	15
S2H23	255	150	480	7	470	14
S2H31	235	140	1000	15	540	16
S2H32	330	200	825	12	500	15
S2H33	615	360	480	7	480	14
S2H41	330	200	1000	15	540	16
S2H42	600	350	700	10	540	16
S2H43	930	545	480	7	470	14
S2H51	500	280	1000	15	540	16
S2H52	910	530	900	13	540	16
S2H53	1590	935	500	7	470	14



S2H22 to S2H53

Features

Casing: Close grained cast iron. Ribbed for strength.

Head-plates: Close grained cast iron. Machined for accurate bearing location and impeller alignment.

Rotors: Cast iron with pressed-in steel shafts.

Gears: Ground and hardened alloy steel spur gears.

Bearings: Anti-friction bearings, retained at gear end to allow accurate setting of gear end clearance between head-plate and impellers.

Lubrication: Oil splash lubricated at gear end. Grease lubricated at drive end.

Seals: Single lip seals for air blowers and exhausters. For gas boosting, special seals are used.

Motor start: Direct on-line preferred. Star Delta starting possible providing that the machine is unloaded on start-up.

Design

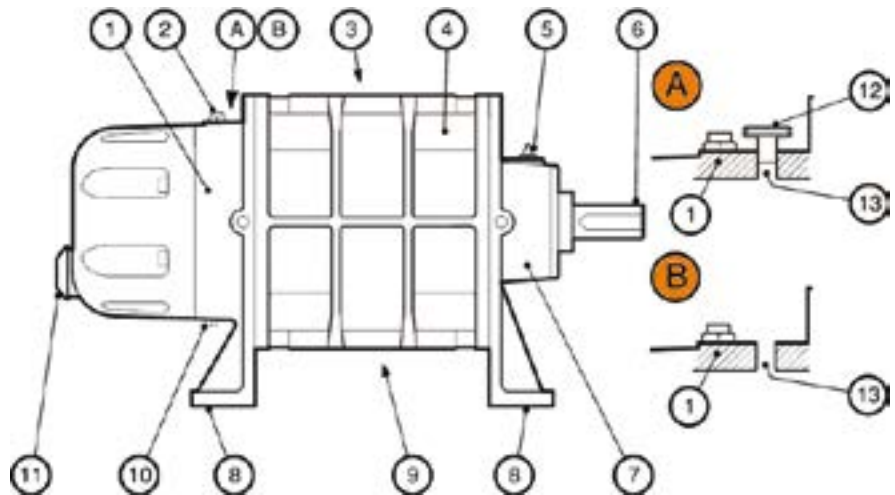
Part	European Designation	ASTM
Blower Body	EN GJL 200	A 48 gr 30 B
End covers	EN GJL 200	A 48 gr 30 B
Rotors	EN GJL 200	A 48 gr 30 B
Shafts	EN 10083-1-91/50CR V4	
Gears	CARBON STEEL 817 M 40	



Part Descriptions

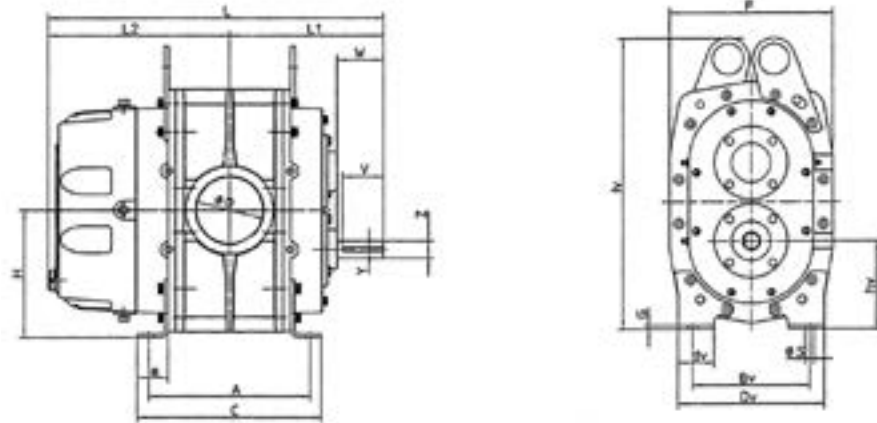
S2H22 to S2H52 / S2H22N to S2H53N

- 1. Gear cover
- 2. Oil filler plug
- 3&9 Inlet/outlet
- 4. Body casting
- 5. Bearing greasing points
- 6. Drive shaft
- 7. Bearing cover
- 8. Mounting feet
- 10. Oil drain feet
- 11. Oil level sight-glass
- 12. External vent filter
- 13. Gear cover vent port
- A** = Gear vent configuration
- B** = Alternative gear cover vent configuration



Dimensions

S2H22 to S2H53



Blower Size	A	Bv	Bh	C	Dv	Dh	dv	dh	E	e	F	G	H
S2H22N	101	75	102	127	130	140	45	40	35	31.5	152	4	124
S2H23N	152	75	102	178	130	140	45	40	35	31.5	152	4	124
S2H31N	134	128	146	170	165	184	45	54	44.5	40.5	194	4	159
S2H32N	156	128	146	192	165	184	45	54	44.5	40.5	194	4	159
S2H33N	223	128	146	259	165	184	45	54	44.5	40.5	194	4	159
S2H41N	153	152	152	183	190	190	47	54	51	40	212	5	165
S2H42N	210	152	152	240	190	190	47	54	51	40	212	5	165
S2H43N	273	152	152	303	190	190	47	54	51	40	212	5	165
S2H51N	178	178	178	216	230	230	57	57	63.5	46	260	6	203
S2H52N	229	178	178	267	230	230	57	57	63.5	46	260	6	203
S2H53N	330	178	178	368	230	230	57	67	63.5	57	264	6	203

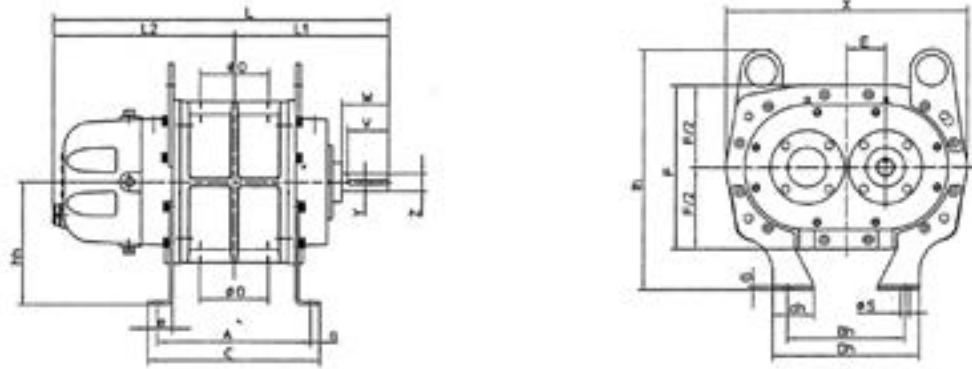
NOTE: All dimensions in millimeters unless otherwise noted.

Blower Size	A	Bv	Bh	C	Dv	Dh	dv	dh	E	e	F	G	H
S2H22	4	3	4	5	5 1/8	5 1/2	1 3/4	1 9/16	1 3/8	1 1/4	6	5/32	4 7/8
S2H23	6	3	4	7	5 1/8	5 1/2	1 3/4	1 9/16	1 3/8	1 1/4	6	5/32	4 7/8
S2H31	5 1/4	5	5 3/4	6 11/16	6 1/2	7 1/4	1 3/4	2 1/8	1 3/4	1 5/8	7 5/8	5/32	6 1/4
S2H32	6 1/8	5	5 3/4	7 9/16	6 1/2	7 1/4	1 3/4	2 1/8	1 3/4	1 5/8	7 5/8	5/32	6 1/4
S2H33	8 3/4	5	5 3/4	10 1/4	6 1/2	7 1/4	1 3/4	2 1/8	1 3/4	1 5/8	7 5/8	5/32	6 1/4
S2H41	6	6	6	7 1/4	7 1/2	7 1/2	1 7/8	2 1/8	2	1 5/8	8 3/8	3/16	6 1/2
S2H42	8 1/4	6	6	9 1/2	7 1/2	7 1/2	1 7/8	2 1/8	2	1 5/8	8 3/8	3/16	6 1/2
S2H43	10 3/4	6	6	11 15/16	7 1/2	7 1/2	1 7/8	2 1/8	2	1 5/8	8 3/8	3/16	6 1/2
S2H51	7	7	7	8 1/2	9	9	2 1/4	2 1/4	2 1/2	1 13/16	10 1/4	1/4	8
S2H52	9	7	7	10 1/2	9	9	2 1/4	2 1/4	2 1/2	1 13/16	10 1/4	1/4	8
S2H53	13	7	7	14 1/2	9	9	2 1/4	2 5/8	2 1/2	2 1/4	10 3/8	1/4	8

NOTE: All dimensions in inches unless otherwise noted. Imperial measurements are approximations based on the metric dimensions.

Dimensions (continued)

S2H22 to S2H53



Blower Size	hv	hh	lv	lh	L	L1	L2	O BSP (in.)	S dia.	V	W	X	Y (in.)	Z (in.)	Weight (kg)
S2H22N	89	95	280	216	260	113	147	1 1/4	10	34	38	222	3/16	5/8	19
S2H23N	89	95	280	216	311	139	172	2	10	34	38	222	3/16	5/8	21
S2H31N	114	127	335	264	314	146	168	1 1/2	10	54	60	283	3/16	5/8	34
S2H32N	114	127	335	264	336	157	179	2	10	54	60	283	3/16	3/4	38
S2H33N	114	127	335	264	402	190	212	3	10	54	60	283	3/16	3/4	48
S2H41N	114	159	379	312	380	173	207	2	12	54	61	313	1/4	7/8	50
S2H42N	114	159	379	312	437	202	235	3	12	54	61	313	1/4	7/8	60
S2H43N	114	159	379	312	501	234	267	4	12	54	61	313	1/4	7/8	73
S2H51N	139.5	178	465	368	479	196	283	2 1/2	12	54	60	387	5/16	1 1/8	95
S2H52N	139.5	178	465	368	530	222	308	4	12	54	60	387	5/16	1 1/8	102
S2H53N	140	178	465	368	649	302	347	4	13	54	60	387	5/16	1.125	121

NOTE: All dimensions in millimeters unless otherwise noted.

Blower Size	hv	hh	lv	lh	L	L1	L2	O BSP (in.)	S dia.	V	W	X	Y in.	Z in.	Weight (lb.)
S2H22	3 1/2	3 3/4	11	8 1/2	10 1/4	4 1/2	5 3/4	1 1/4	3/8	1 5/16	1 1/2	8 3/4	3/16	5/8	42
S2H23	3 1/2	3 3/4	11	8 1/2	12 1/4	5 1/2	6 3/4	2	3/8	1 5/16	1 1/2	8 3/4	3/16	5/8	46
S2H31	4 1/2	5	13 3/16	10 3/8	12 3/8	5 3/4	6 5/8	1 1/2	3/8	2 1/8	2 9/25	11 1/8	3/16	3/4	75
S2H32	4 1/2	5	13 3/16	10 3/8	13 1/4	6 3/16	7	2	3/8	2 1/8	2 9/25	11 1/8	3/16	3/4	84
S2H33	4 1/2	5	13 3/16	10 3/8	15 7/8	7 1/2	8 3/8	3	3/8	2 1/8	2 9/25	11 1/8	3/16	3/4	106
S2H41	4 1/2	6 1/4	15	12 1/4	15	6 13/16	8 1/8	2	1/2	2 1/8	2 2/5	12 5/16	1/4	7/8	110
S2H42	4 1/2	6 1/4	15	12 1/4	17 3/16	8	9 1/4	3	1/2	2 1/8	2 2/5	12 5/16	1/4	7/8	132
S2H43	4 1/2	6 1/4	15	12 1/4	19 3/4	9 1/4	10 1/2	4	1/2	2 1/8	2 2/5	12 5/16	1/4	7/8	161
S2H51	5 1/2	7	18 5/16	14 1/2	18 7/8	7 3/4	11 1/8	2 1/2	1/2	2 1/8	2 9/25	15 1/4	5/16	1 1/8	209
S2H52	5 1/2	7	18 5/16	14 1/2	20 7/8	8 3/4	12 1/8	4	1/2	2 1/8	2 9/25	15 1/4	5/16	1 1/8	225
S2H53	5 1/2	7	18 5/16	14 1/2	25 1/2	11 7/8	13 11/16	4	1/2	2 1/8	2 9/25	15 1/4	5/16	1 1/8	267

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mb air systems ltd

Company Directory:

149 Glasgow Road
Wishaw
Lanarkshire
ML2 7QJ
Tel 01698 355711
Fax 01698 359299

Wellheads Road
Farburn Industrial Estate
Dyce, Aberdeen
AB21 7HG
Tel 01224 723434
Fax 01224 723545

Fleming Close
Segensworth East
Fareham
Hampshire
PO15 5SB
Tel 01489 588398
Fax 01489 588381

8 Burford Way
Boldon Business Park
Boldon
Tyne & Wear
NE35 9PZ
Tel 0191 519 5500
Fax 0191 537 1105

E-mail sales@mbairsystems.co.uk
www.mbairsystems.co.uk
www.airwinch.co.uk



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