

## "SIS" SERIES BLOWER

### INSTALLATION AND MAINTENANCE INSTRUCTIONS

#### RECEIVING INSPECTION

Check for damage or missing parts immediately upon receipt. Ensure that wheel rotates freely.

**REPORT ANY DAMAGE PROMPTLY TO CARRIER.**

#### INSTALLATION

Remove hood and filters from inside the cabinet. Caulk top of curb before setting unit in place. (Curb must be smaller than unit "A" dimension). Secure unit to curb though 8 - 5/16" holes located around the bottom of the unit. Tighten wheel set screw.

#### MOTOR & V-BELT DRIVES

Mount motor with hardware provided and install pulleys and belt(s) with proper tension. Follow illustrated recommendations on belt installation below.

#### BELT TENSION & PULLEY

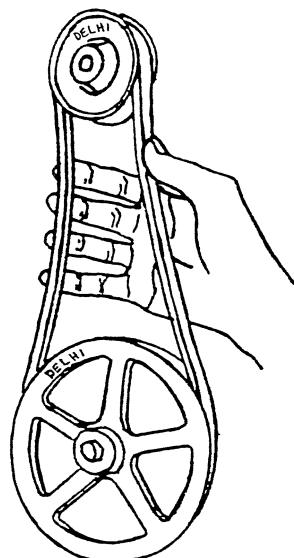
Excessive belt tension is the number 1 cause of blower bearing failure

Proper belt tension and pulley alignment are essential for trouble free operation.

A simple "Rule of Thumb" for checking belt tension is illustrated.

When the belt is grasped as shown, a total deflection of approximately 1" should be easily attained.

Insufficient deflection indicates that the belt is too tight, resulting in noise from excessive vibration, premature bearing failure, and short belt life. Tight belts may overload a motor that would otherwise be adequate.



Excessive deflection is an indication that the belt is not tight enough. If not corrected, slippage could cause loss of blower speed and belt failure through wear.

A belt should be just tight enough to avoid slippage.

Align pulleys with a straight edge to conserve belt life and eliminate unnecessary noise.

Check tension before start-up, after every pulley adjustment and regularly thereafter.

**Set Screws:**  
Ensure all set screws on both pulleys and the blower wheel are tight.

#### HOOD AND FILTER INSTALLATION (Models SIS-9 to SIS-18)

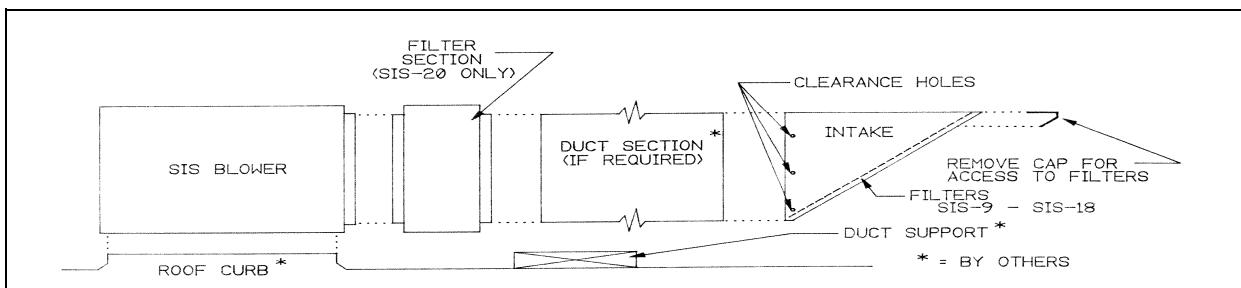
Attach duct section when required (by others) to the SIS inlet flange. Drill 1/8" holes through duct and inlet flange and secure with sheet metal screws provided. Slide the hood (less filters) over the inlet flange and secure with sheet metal screws provided.

**HOOD/DUCT OVERLAP SHOULD NOT EXCEED 1".** Remove hood cap and slide filter(s) into "U" channels located on the inner sides of the hood. Replace cap.

#### FILTERS INSTALLATION

#### (Model SIS-20)

Attach filter section to SIS inlet flange. Drill 1/8" diameter holes through SIS inlet flange using clearance holes on SIS filter section flange as a guide and secure using sheet metal screws provided. For duct extension and hood installation, follow instructions for models SIS-9 and SIS-18 above.



**"SIS" SERIES BLOWER****ELECTRICAL**

Connect motor in accordance with applicable codes using motor mounting hardware supplied. Provide properly sized motor overload protection against electrical faults and system changes. Confirm proper rotation on start-up.

**MAINTENANCE**

Inspect periodically for mounting rigidity. Check belt for wear and tear and tension. Adjust as required. Inspect wheel for dirt accumulation and clean as indicated. CAUTION: DO NOT DISLODGE BALANCING CLIPS. Check wheel set screws for tightness. Remove and clean washable filters periodically as required.

**LUBRICATION**

Models SIS-9 to SIS-18 use bearings with sealed-in lubricant. No further lubrication is required. Cast iron, pillow block, sealed type bearings with long term lithium based grease are used on model SIS-20. Re-lubrication is unnecessary under most operating conditions. If re-lubrication is required, lubricant should be compatible to Esso Beacon #325.

**"SIS" SERIES BLOWER BELT SELECTION TABLE**

Blower Model		3-1/4 CAST IRON BLOWER PULLEY - DIA. & RPM RANGE							Belt Length Based on Motor Frame
		5" 824-1125 RPM	6" 680-929 RPM	7" 580-792 RPM	8" 505-690 RPM	9" 447-611 RPM	10" 401-548 RPM	12" 533-455 RPM	
<b>SIS-9</b>		4L37	4L39	4L41	4L42	4L44	4L45	---	
<b>SIS-10</b>		4L39	4L41	4L42	4L44	4L46	4L47	---	48 FRAME
<b>SIS-12</b>		4L42	4L44	4L46	4L47	4L49	4L51	---	
<b>SIS-15</b>		---	---	---	---	4L55	4L57	4L60	
<b>SIS-18</b>		---	---	---	---	4L59	4L60	4L64	56 FRAME
Motor Pulley Cast Iron	Blower Pulley Cast Iron	RPM Range	<b>SIS-9</b>	<b>SIS-10</b>	<b>SIS-12</b>	<b>SIS-15</b>	<b>SIS-18</b>	<b>SIS-20</b>	Belt Length Based on Motor Frame
IVL44 O.D. 4.15"	HB47T	1630 - 1232	B37	B39	B43	---	---	---	
	HB57T	1329 - 1005	B39	B41	B44	---	---	---	48 FRAME
	HB67T	1121 - 848	B40	B43	B46	---	---	---	(ADD 1" FOR 56 FRAME)
	HB77T	969 - 733	B42	B44	B48	B52	B56	---	
	HB87T	854 - 645	B43	B46	B49	B54	B57	---	MODELS SIS-15 & SIS-18
	HB97T	763 - 577	B46	B48	B51	B56	B59	---	143, 145T FRAME
	HB107T	690 - 521	B47	B50	B53	B58	B61	---	
	HB117T	629 - 476	B49	B51	B55	B59	B63	---	
	HB127T	578 - 437	B51	B53	B55	B61	B64	---	
	HB137T	535 - 404	B53	B55	B58	B63	B66	---	
	HB157T	466 - 352	B57	B59	B62	---	B70	---	
	HB187T	390 - 295	B64	B65	B68	---	---	---	
8325 O.D. 3.25"	HB77T	756 - 568	---	---	---	B51	B54	---	
	HB87T	667 - 500	---	---	---	B53	B56	---	143T & 145T
	HB97T	596 - 447	---	---	---	B55	B58	---	
	HB107T	538 - 404	---	---	---	B56	B60	---	
	HB117T	491 - 368	---	---	---	B58	B61	---	FRAME
	HB127T	452 - 339	---	---	---	B60	B63	---	
	HB137T	418 - 314	---	---	---	B62	B65	---	
	HB157T	364 - 372	---	---	---	---	B69	---	
8400 O.D. 4.15"	HB87T	854 - 645	---	---	---	---	---	B79	
	HB97T	763 - 577	---	---	---	---	---	B81	182, 184T
	HB107T	690 - 521	---	---	---	---	---	B83	FRAME
	HB117T	629 - 476	---	---	---	---	---	B84	(DEDUCT 2")
	HB127T	578 - 437	---	---	---	---	---	B86	FOR 56,
	HB137T	535 - 404	---	---	---	---	---	B88	143 & 145T)
	HB157T	466 - 352	---	---	---	---	---	B91	
	HB187T	390 - 295	---	---	---	---	---	B97	
8550 O.D. 5.35"	HB117T	828 - 686	---	---	---	---	---	B86	182, 184T
	HB127T	756 - 618	---	---	---	---	---	B88	FRAME
	HB137T	697 - 575	---	---	---	---	---	B90	(DEDUCT 2" FOR 56, 143 & 145T)
	HB157T	616 - 509	---	---	---	---	---	B93	
D8600 O.D. 6"	<b>DOUBLE GROOVE</b>								
	12.4 X 2B	830 - 700	---	---	---	---	---	B90	213, 215T
	13.6 X 2B	759 - 631	---	---	---	---	---	B92	FRAME

FOR FRACTIONAL HP APPLICATIONS "4L" BELTS MAY BE SUBSTITUTED BY ADDING 2" TO THE SPECIFIED "B" BELTS. Eg. B50 BELT = 4L52