Marley Engineered Products
AN SPX COMPANY

Installation Instructions

NOTE: The accessories described in this instruction manual are intended for use with Marley Engineered Products SDH Series Portable High Temperature Blowers.

⚠ WARNING ⚠

This instruction sheet provides information for the proper installation and use of the accessories described. It is to be used in conjunction wit the instruction manual that came with the SDH unit. Read, understand and follow the instruction and warnings provided in each manual before operating the unit. Failure to do so could result in improper and / or unsafe operation of the unit that could lead to a fire, personal injury or permanent damage to the unit.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK:

1. Always disconnect power to the unit at the main service panel before installing these accessories or performing any maintenance on the unit.
2. Special care should always be used when using the blower unit with the flexible duct accessory to keep the inlet and exhaust open and free from obstructions.

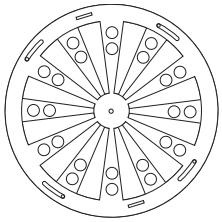
Save these instructions along with the blower instructions for future reference.

SAVE THESE INSTRUCTIONS

⚠ WARNING ⚠

TO REDUCE POTENTIAL FOR FIRE OR ELECTRIC SHOCK, READ AND FOLLOW INSTRUCTIONS AND WARNINGS PROVIDED IN THE HEATER INSTRUCTION MANUAL.

INSTALLATION



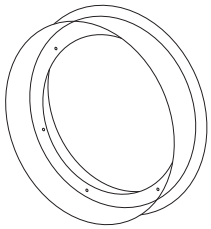
SDHAD Adjustable Damper

The adjustable damper can be attached to the intake side of the Super Dragon heaters to reduce the amount of airflow to insure the required air temperature is realized. This is especially important when the unit will be used without flexible duct.

Remove the four 1/4”- 20, 2-1/2 inch bolts holding the grill and bolt the adapter ring and grill using the same bolts. If the intake is to be connected to return air ducting with the use of an adapter ring, the damper should be placed between the adapter ring and the inlet flange on the intake flange. The grill cannot be used when the adapter ring is installed

SDH SERIES HIGH TEMPERATURE BLOWER HEATER ACCESSORIES

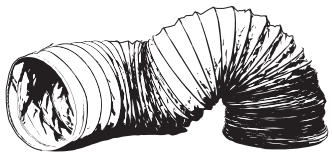
SDHDA20 Duct Adapter Ring



The duct adapter ring provides a means to attach the 20” diameter flexible duct to the inlet or outlet of the SDH series heaters. Two are required if using duct on the inlet and outlet for applications where air is drawn from the outside going to the heat application.

Remove the four 1/4”-20, 2-1/2 inch bolts holding the grill and bolt the adapter ring using the same bolts. The grill will not be used with the adapter ring and can be stored for later use in case the unit is used without the ducting.

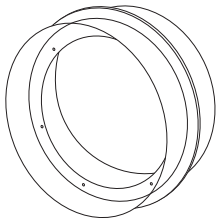
SDHFX20 Flexible Duct



The heavy duty, flexible duct is constructed of 100% polyester based fabric and is 20” diameter and 25’ long. It is made to resist wear and is suitable for temperatures from -40° to 220°F. The duct is internally supported with a steel wire helix and can also be used on the air inlet end of the heater without collapsing under the negative pressure.

The duct requires the addition of a SDHDA20 adapter ring to connect to the flanged inlet and/or outlet of the heater. The duct should be slipped over the 20” diameter portion of the adapter and secured with a SDHDC duct clamping band.

SDHSK20 Flexible Duct Splice Kit



The flexible duct splice is designed to splice two 25’ lengths of 20” flexible duct to create longer lengths.

The two duct sections should be slipped over the two 20” diameter portions of the splice and each secured with SDHDC duct clamping bands.

SDHDC Duct Clamp



Stainless steel band is designed to fit over the flexible duct for a secure attachment to the adapter ring or flexible duct splice.

SUPER DRAGON PERFORMANCE TABLES

The performance tables are sorted by kW. The CFM and ΔT columns show the changes that affect the air flow and temperature rise for various lengths of duct. The ΔT w/SDHAD (Δ T w/AD) column shows the change in temperature rise by adding the SDHAD adjustable damper. The damper lowers the airflow below the number shown in the CFM column and results in a higher temperature rise for each situation. Listed are the three RPM results which corresponds to the extent of lab testing. By adjusting the pulleys, other RPM's can be achieved and will change the CFM and ΔT results. If the results exceed the maximum static load, it will result in the tripping of the over temperature control during normal operation. **DO NOT BYPASS THE OVER TEMPERATURE CONTROL**.

30 KW UNIT

Duct	1500 RPM			1800 RPM			2200 RPM		
Length	CFM	Δ T	Δ T w/AD	CFM	Δ T	Δ T w/AD	CFM	Δ T	Δ T w/AD
0	1750	53ºF	72-82ºF	2220	42ºF	50-56ºF	2680	35ºF	39-43ºF
25	1610	58ºF	81-88ºF	2100	44ºF	61-69ºF	2550	37ºF	49-54ºF
40	1500	62ºF	Insufficient cfm	1960	48ºF	69-75ºF	2390	39ºF	56-58ºF
50	1410	66ºF		1925	48ºF	74-79ºF	2200	43ºF	Insufficient cfm
65	1325	70ºF		1800	52ºF	80-81ºF	1950	48ºF	
75	1200	78ºF		1650	56ºF	Insufficient cfm	1750	53ºF	
90	1125	82ºF		1410	66ºF		1620	57ºF	
100	1080	86ºF		1300	78ºF		1600	58ºF	
115	Insufficient cfm			1200	72ºF		Insufficient cfm		
125				1150	81ºF				
150				1110	84ºF				
160				1090	86ºF				

Note: Add an additional 15' of duct for each 90º bend and 25' of duct for each 180º bend.
Example: 50' of duct with a 90º bend and a 180º bend would be equal to a straight section of duct 90' long.

48 KW UNIT

Duct	1500 RPM			1800 RPM			2200 RPM		
Length	CFM	Δ T	Δ T w/AD	CFM	Δ T	Δ T w/AD	CFM	Δ T	Δ T w/AD
0	1750	85ºF	115-131ºF	2220	67ºF	80-90ºF	2680	59ºF	62-69ºF
25	1610	93ºF	130-141ºF	2100	71ºF	98-110ºF	2550	59ºF	78-86ºF
40	1500	99ºF	Insufficient cfm	1960	77ºF	110-120ºF	2390	62ºF	90-93ºF
50	1410	106ºF		1925	78ºF	118-126ºF	2200	69ºF	Insufficient cfm
65	1325	112ºF		1800	83ºF	128-130ºF	1950	77ºF	
75	1200	125ºF		1650	91ºF	Insufficient cfm	1750	86ºF	
90	1125	131ºF		1410	106ºF		1620	91ºF	
100	1080	138ºF		1300	115ºF		1600	93ºF	
115	Insufficient cfm			1200	124ºF		Insufficient cfm		
125				1150	130ºF				
150				1110	134ºF				
165				1090	138ºF				

Note: Add an additional 15' of duct for each 90º bend and 25' of duct for each 180º bend.
Example: 50' of duct with a 90º bend and a 180º bend would be equal to a straight section of duct 90' long.

60 KW UNIT

Duct	1500 RPM			1800 RPM			2200 RPM		
Length	CFM	Δ T	Δ T w/AD	CFM	Δ T	Δ T w/AD	CFM	Δ T	Δ T w/AD
0	1750	106ºF	144-164ºF	2220	84ºF	100-112ºF	2680	70ºF	78-86ºF
25	1610	116ºF	Insufficient cfm	2100	88ºF	122-138ºF	2550	74ºF	98-108ºF
40	1500	124ºF		1960	96ºF	138-150ºF	2390	78ºF	112-116ºF
50	1410	132ºF		1925	96ºF	148-158ºF	2200	84ºF	Insufficient cfm
65	1325	140ºF		1800	104ºF	160-162ºF	1950	96ºF	
75	1200	156ºF		1650	112ºF	Insufficient cfm	1750	106ºF	
90	1125	164ºF		1410	132ºF		1620	116ºF	
100	1080	172ºF		1300	144ºF		1600	116ºF	
115	Insufficient cfm			1200	156ºF		Insufficient cfm		
125				1150	162ºF				
150				1110	168ºF				
165				1090	172ºF				

Note: Add an additional 15' of duct for each 90º bend and 25' of duct for each 180º bend.
Example: 50' of duct with a 90º bend and a 180º bend would be equal to a straight section of duct 90' long.

HOW TO OBTAIN WARRANTY SERVICE AND WARRANTY PARTS PLUS GENERAL INFORMATION

1. Warranty Service or Parts **1-800-642-4328**
2. Purchase Replacement Parts **1-800-654-3545**
3. General Product Information **www.marleymep.com**

Note: When obtaining service always have the following:
1. Model number of the product
2. Date of manufacture
3. Part number or description

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