

## **Samos**

### **SB 0080 – 1100 D/D2**



Samos SB 0310 D

#### **Description**

Busch Samos SB regenerative blowers are designed for either pressure or vacuum. They are available in single and two stage models so they can operate over a wide range of flow and differential pressure.

#### **Low Maintenance and Environmentally Friendly**

Samos low maintenance features include: rugged die cast aluminum construction, sealed-for-life bearings, a fan cooled motor and a non-contacting impeller. They are oil-free, have a low power consumption, and are quiet due to internal silencers. Samos blowers can be installed in either a vertical or horizontal position.

# Regenerative Blowers

## Operating Principle



1. Gas Inlet
2. Gas outlet
3. Impeller
4. Silencer

## Operating Principle

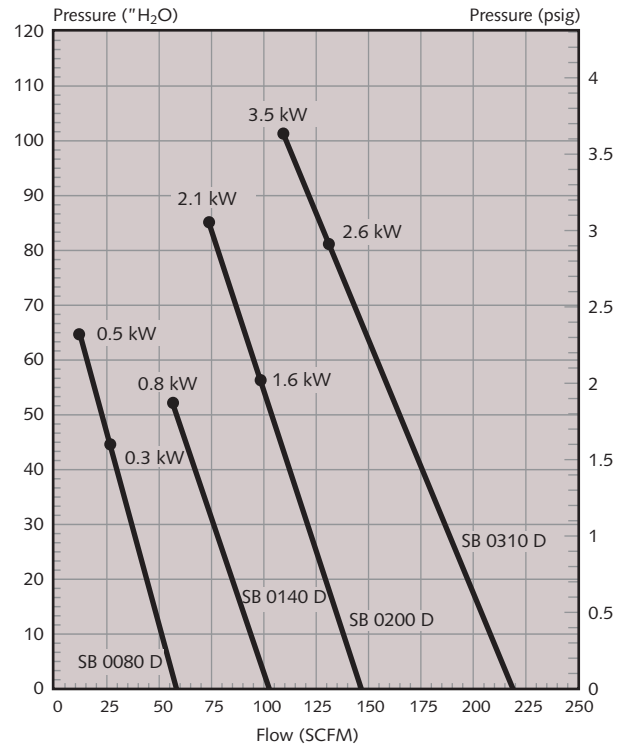
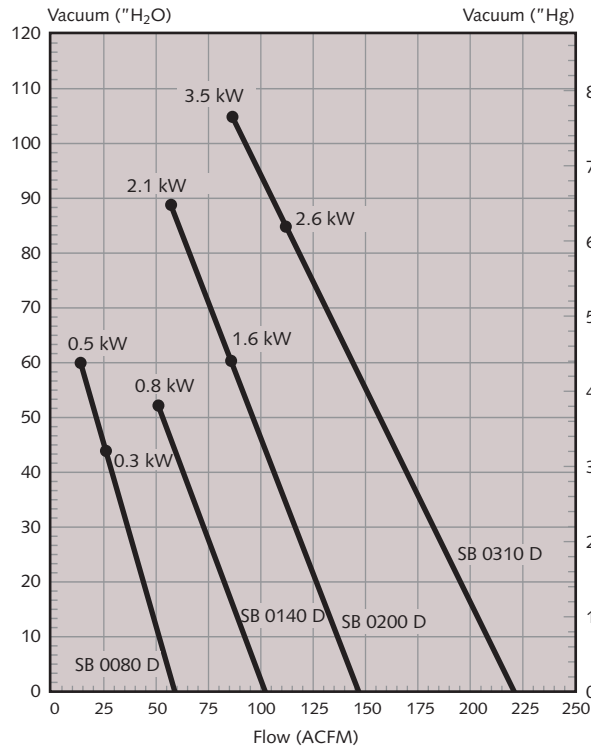
Gases are drawn in through the blower inlet. As the impeller rotates, it transfers kinetic energy to the gases being pumped. As a result, the gases move forward through a corkscrew shaped path and are compressed, then discharged through the pressure side exhaust silencer. The impeller is mounted directly on the motor shaft.

## Applications

- Pneumatic conveying
- Transport and lifting system
- Carton forming and packaging
- Vacuum holddown
- Materials handling
- Soil remediation
- Trim removal
- Wood routers
- Printing industry applications



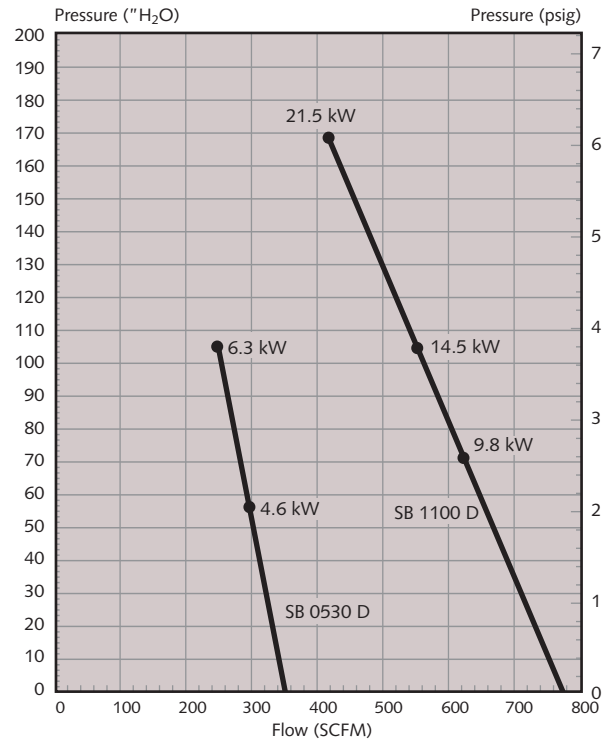
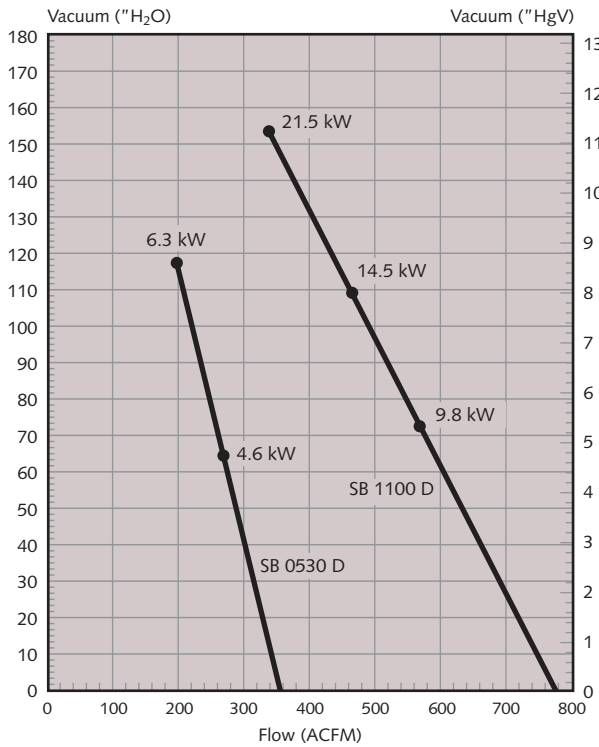
### Technical Data Samos SB 0080 - 0310 D (single stage)



Technical Data		Nominal Pumping Speed		Max. Vacuum		Max Pressure		Motor (60 Hz)		Sound dB (A)	Weight lbs
Model		ACFM	"H <sub>2</sub> O	"Hg	"H <sub>2</sub> O	psig	kW	Hp	RPM		
SB 0080 D		59	44	3.2	44	1.6	0.3	.40	3450	61	18
SB 0080 D		59	60	4.4	64	2.3	0.5	.67	3450	61	22
SB 0140 D		103	52	3.8	52	1.9	0.8	1.07	3450	64	29
SB 0200 D		147	60	4.4	56	2.0	1.5	2.0	3450	73	46
SB 0200 D		147	89	6.5	85	3.1	2.1	2.7	3450	73	46
SB 0310 D		221	85	6.2	81	2.9	2.6	3.5	3450	73	66
SB 0310 D		221	105	7.7	101	3.6	3.5	4.7	3450	73	68

# Regenerative Blowers

## Technical Data Samos SB 0530 - 1100 D (single stage)

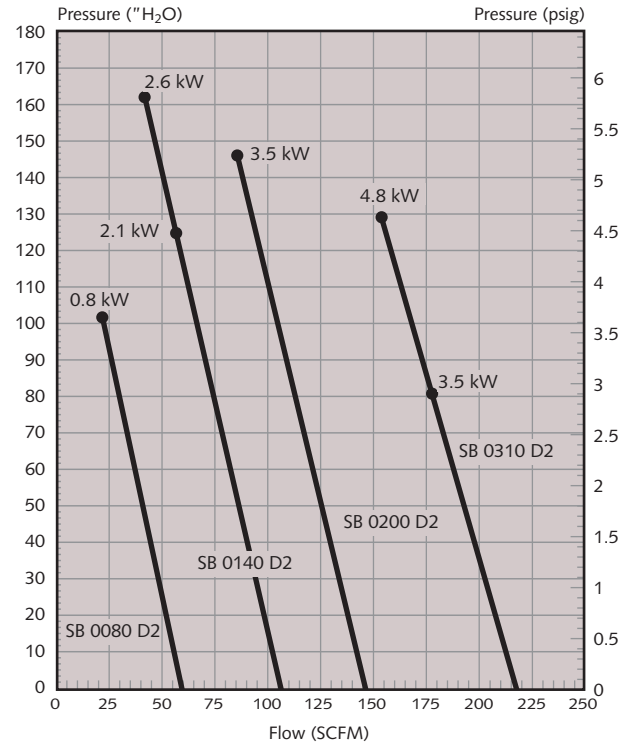
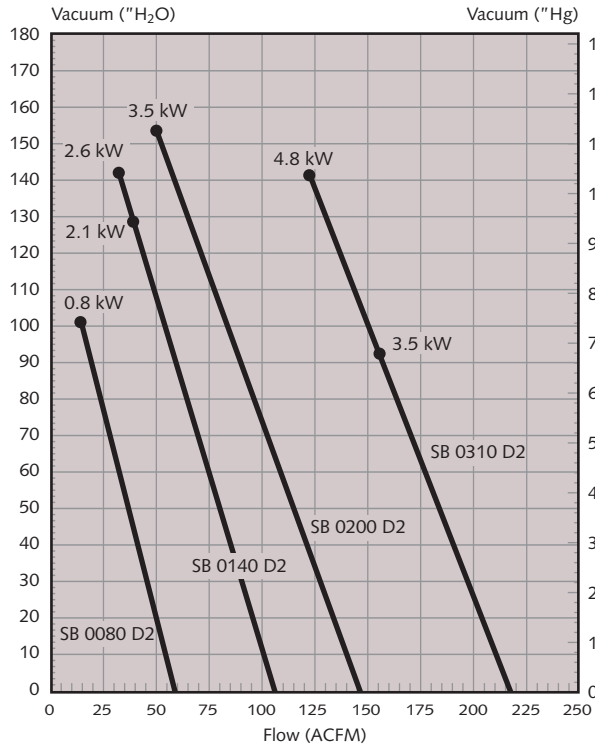


### Technical Data

Model	Nominal Pumping Speed ACFM	Max. Vacuum		Max Pressure		Motor (60 Hz)			Sound dB (A)	Weight lbs
		"H <sub>2</sub> O	"Hg	"H <sub>2</sub> O	psig	kW	Hp	RPM		
SB 0530 D	353	64	4.7	56	2.0	4.6	6.2	3450	75	249
SB 0530 D	353	117	8.6	105	3.8	6.3	8.4	3450	75	251
SB 1100 D	777	72	5.3	72	2.6	9.8	13.1	3450	80	425
SB 1100 D	777	109	8.0	105	3.8	14.5	19.4	3450	80	427
SB 1100 D	777	153	11.2	169	6.1	21.5	28.8	3450	80	429



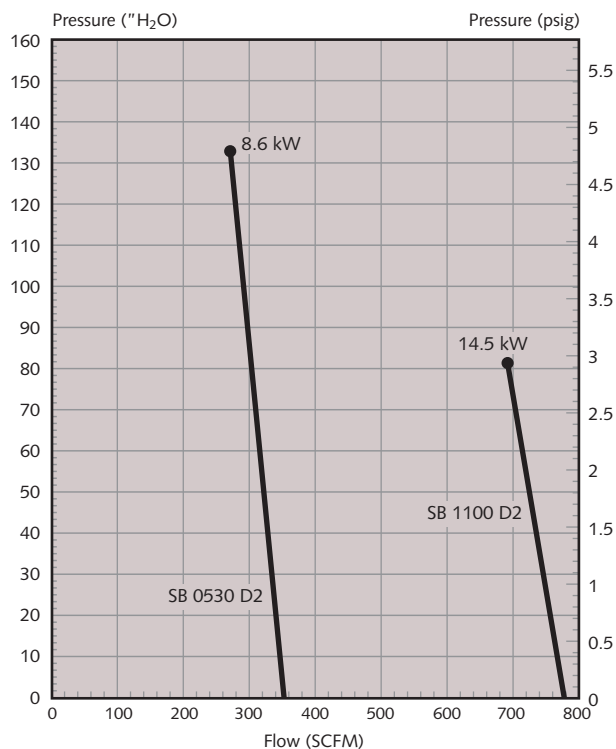
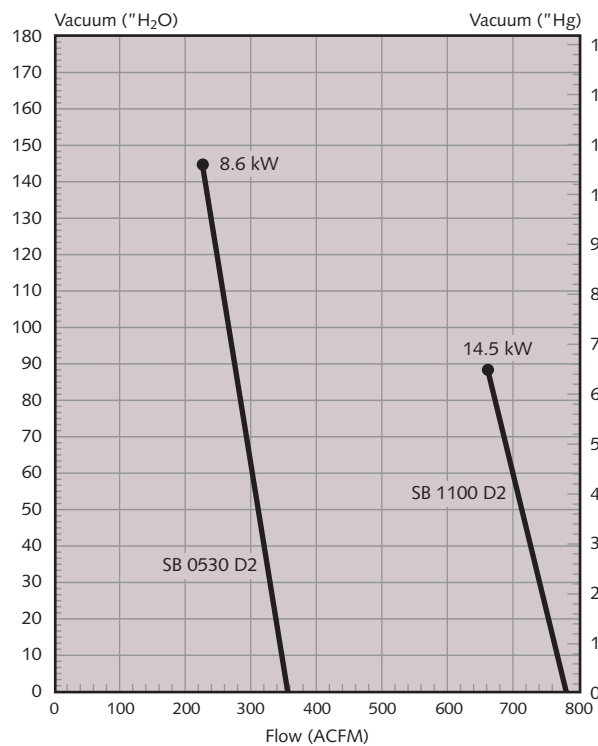
### Technical Data Samos SB 0080 - 0310 D2 (two stage)



Technical Data		Nominal Pumping Speed	Max. Vacuum	Max Pressure	Motor (60 Hz)	Sound	Weight
Model		ACFM	"H <sub>2</sub> O "Hg	"H <sub>2</sub> O psig	kW Hp	dB (A)	lbs
SB 0080 D2		59	101 7.4	101 3.6	0.8 1.07	66	31
SB 0140 D2		106	129 9.5	125 4.5	2.1 2.8	69	53
SB 0140 D2		106	141 10.3	161 5.8	2.6 3.5	69	55
SB 0200 D2		147	153 11.2	145 5.2	3.5 4.7	76	88
SB 0310 D2		218	93 6.8	81 2.9	3.5 4.7	77	119
SB 0310 D2		218	141 10.3	129 4.6	4.8 6.4	77	119

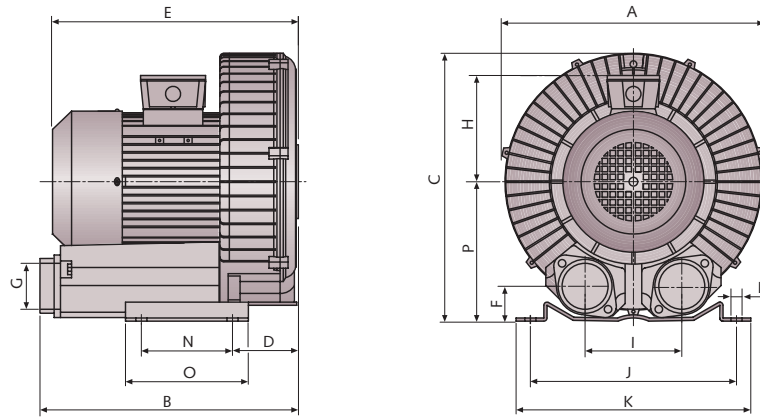
# Regenerative Blowers

## Technical Data Samos SB 0530 - 1100 D2 (two stage)



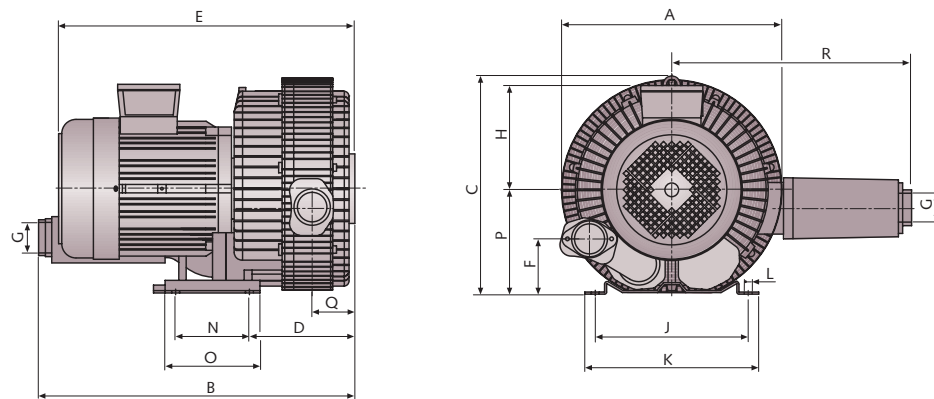
Technical Data		Nominal Pumping Speed	Max. Vacuum	Max Pressure	Motor (60 Hz)	Sound	Weight
Model		ACFM	"H <sub>2</sub> O "Hg	"H <sub>2</sub> O psig	kW Hp	dB (A)	lbs
SB 0530 D2		353	145 10.6	133 4.8	8.6 11.5	79	372
SB 1100 D2		777	89 6.5	81 2.9	14.5 19.4	80	583

### Dimensions Samos SB 0080 - 1100 D (single stage)



Model	A	B	C	D	E	F	G (NPT)	H	I	J	K	L	N	O	P
SB 0080 D	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	9 <sup>13</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	<sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>
SB 0140 D	11 <sup>5</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	12	3	10 <sup>11</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	8 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>16</sub>	<sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>
SB 0200 D	13 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>8</sub>	2	6 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	<sup>9</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>16</sub>
SB 0310 D	15 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>8</sub>	15 <sup>3</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	14 <sup>15</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	2	7 <sup>3</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	11 <sup>7</sup> / <sub>16</sub>	12 <sup>13</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>
SB 0530 D	19 <sup>11</sup> / <sub>16</sub>	19 <sup>1</sup> / <sub>2</sub>	20 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	NA	5 <sup>11</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>8</sub>	16 <sup>9</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	11	12 <sup>7</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>2</sub>
SB 1100 D	21 <sup>15</sup> / <sub>16</sub>	28 <sup>5</sup> / <sub>8</sub>	24 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	24 <sup>15</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	4	NA	8 <sup>1</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	23 <sup>7</sup> / <sub>16</sub>	NA	11 <sup>7</sup> / <sub>8</sub>

### Dimensions Samos SB 0080 - 1100 D2 (two stage)

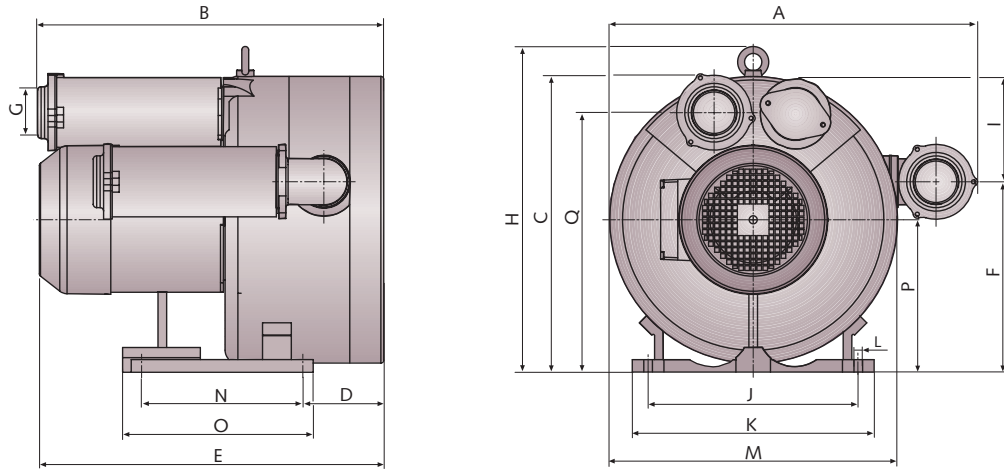


Model	A	B	C	D	E	F	G (NPT)	H	J	K	L	N	O	P	Q	R
SB 0080 D2	11 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	<sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>
SB 0140 D2	12 <sup>11</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>	6	15 <sup>7</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>16</sub>	<sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	12 <sup>11</sup> / <sub>16</sub>
SB 0200 D2	14 <sup>5</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>16</sub>	18 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	2	5 <sup>5</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	<sup>9</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>4</sub>
SB 0310 D2	16 <sup>7</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	16 <sup>5</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>16</sub>	20 <sup>11</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	2	5 <sup>1</sup> / <sub>16</sub>	11 <sup>7</sup> / <sub>16</sub>	12 <sup>13</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	17 <sup>7</sup> / <sub>16</sub>
SB 1100 D2	22 <sup>1</sup> / <sub>16</sub>	32 <sup>7</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	30 <sup>3</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	4	13 <sup>1</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	23 <sup>7</sup> / <sub>16</sub>	NA	11 <sup>7</sup> / <sub>8</sub>	5 <sup>13</sup> / <sub>16</sub>	32 <sup>3</sup> / <sub>8</sub>

All dimensions in inches unless otherwise noted.



Dimensions Samos SB 0530 D2 (two stage)



Model	A	B	C	D	E	F	G (NPT)	H	I	J	K	L	M	N	O	P	Q
SB 0530 D2	25 <sup>1</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>4</sub>	20 <sup>5</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	23 <sup>11</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>8</sub>	16 <sup>9</sup> / <sub>16</sub>	9 <sup>9</sup> / <sub>16</sub>	19 <sup>11</sup> / <sub>16</sub>	11	12 <sup>7</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>2</sub>	17 <sup>15</sup> / <sub>16</sub>

All dimensions in inches unless otherwise noted.



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