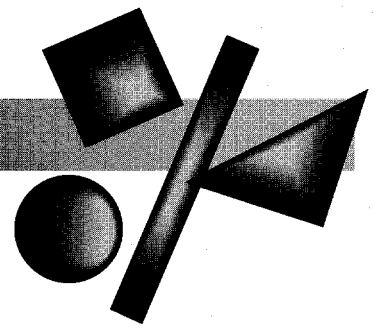


# FORSYTHE SERIES



## SB & BV Series Low Frequency Vented Systems

The lowest octaves present unique problems to the loudspeaker engineer. Yet these challenges must be met in order to provide a firm foundation for truly musical full range reproduction. EAW engineers approach the range from 20 to 200 Hz using a variety of techniques.

The vented enclosures of SB and BV Series systems use enclosure resonance to reinforce the driver's own output. Tailoring such a system to a specific group of applications is a complex process. The driver's Thiele-Small parameters must be balanced with the desired enclosure size and tuning to produce the best response within a given frequency range. Smooth™ coupling with the intended set of full-

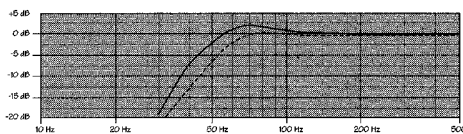
range or mid/high systems is also important. Electronic processing in the form of crossover filters, equalization and cone excursion limiting must be integrated into the design process.

In general, SB Series systems are optimized for use as subwoofers. They will extend the power response of EAW full range systems into the lowest musical octaves. BV Series systems are optimized for use with EAW MH Series mid/high frequency systems in the design of true three-way large-format arrays that combine effective pattern control and intelligibility with full range musical response. Where flat power response into the true sub-bass region is desired, the

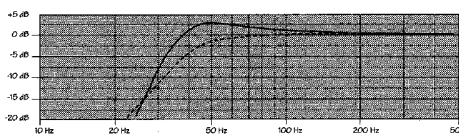
MH/BV combination should be supplemented with appropriate SB Series subwoofers.

EAW's MX Series Closely Coupled Electronic Processors are available in specific configurations for recommended combinations of SB Series and BV Series low frequency systems with MH Series mid/high systems and KF, JF, DS or FR Series full range systems. Please check the current MX Series Configurations list for the correct ordering number. In cases where a pre-engineered configuration is not available, EAW Engineering Support will be able to recommend the optimum MX Series CCEP configuration.

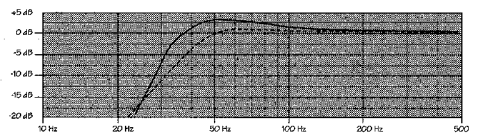
### SB120PD1 Response Data



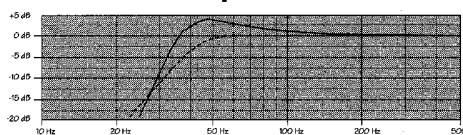
### SB250PD2 Response Data



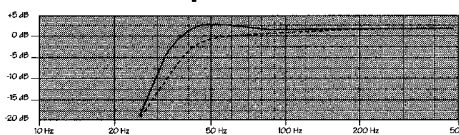
### SB535iP Response Data



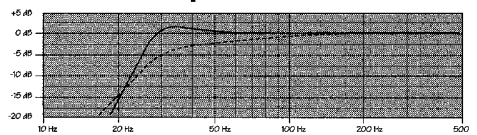
### SB150PD1 Response Data



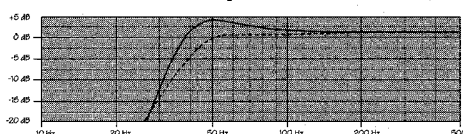
### BV525iP Response Data



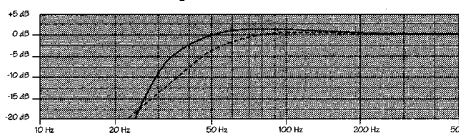
### SB528iP Response Data



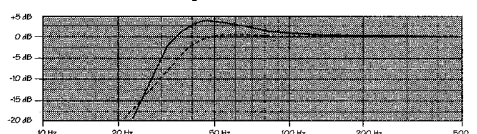
### BV150PD1 Response Data



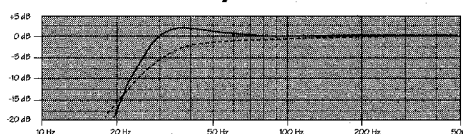
### SB600R Response Data



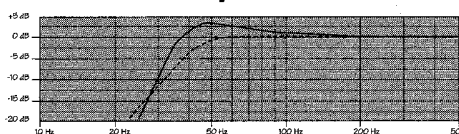
### SB850iR Response Data



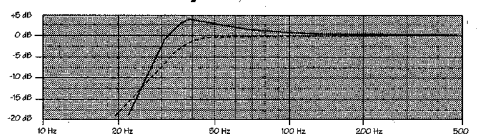
### SB180PD1 Response Data



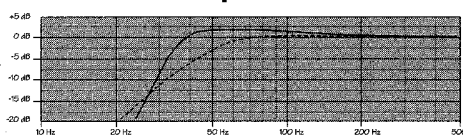
### SB625PD2 Response Data



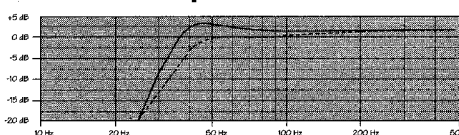
### SB850iP Response Data



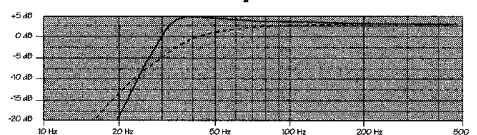
### SB330PD1 Response Data



### BV535iP Response Data



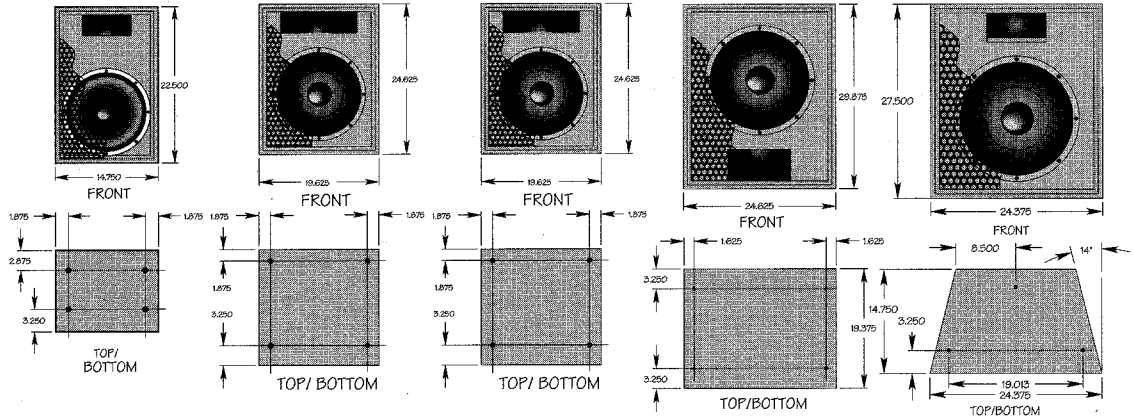
### SB1000RD2 Response Data



— Response With MX200 CCEP™  
- - - - - Response Without EQ



# SB & BV Series Low Frequency Systems



| Model        | SB120PD1                                 | SB150PD1                       | BV150PD1                                       | SB180PD1                       | SB330PD1                            |
|--------------|--|--------------------------------|--|--------------------------------|-------------------------------------|
| Application: | Ultra Compact Low Frequency Single 12-in | Compact Subwoofer Single 15-in | Compact High Output Low Frequency Single 15-in | Compact Subwoofer Single 18-in | Compact VAT™ Subwoofer Single 18-in |
| Description: |  |                                |  |                                |                                     |

## Frequency Response

|                      |                |                |                |                |                |
|----------------------|----------------|----------------|----------------|----------------|----------------|
| -3 dB († no CCEP™):  | 45 Hz (55 Hz†) | 33 Hz (43 Hz†) | 37 Hz (45 Hz†) | 27 Hz (36 Hz†) | 33 Hz (49 Hz†) |
| -10 dB († no CCEP™): | 36 Hz (44 Hz†) | 29 Hz (32 Hz†) | 33 Hz (36 Hz†) | 23 Hz (25 Hz†) | 29 Hz (33 Hz†) |
| Highest Crossover:   | 1,200 Hz       | 300 Hz         | 800 Hz         | 250 Hz         | 250 Hz         |

## Sensitivity, Efficiency & Impedance

|                       |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Sensitivity 1W @1m:   | 96 dB SPL | 95 dB SPL | 98 dB SPL | 96 dB SPL | 96 dB SPL |
| 1/2 Space Efficiency: | 2.20%     | 2.20%     | 3.50%     | 2.20%     | 2.20%     |
| Nominal Impedance:    | 8         | 8         | 8         | 8         | 8         |

## Power Handling

|                   |           |             |           |             |             |
|-------------------|-----------|-------------|-----------|-------------|-------------|
| 100 Hr Sine Wave: | 300 Watts | 400 Watts   | 300 Watts | 400 Watts   | 400 Watts   |
| AES Standard:     | 700 Watts | 1,000 Watts | 800 Watts | 1,000 Watts | 1,000 Watts |

## Maximum Output

|                     |            |            |            |            |            |
|---------------------|------------|------------|------------|------------|------------|
| SPL Peak:           | 124 dB SPL | 125 dB SPL | 127 dB SPL | 126 dB SPL | 126 dB SPL |
| SPL Long Term:      | 121 dB SPL | 121 dB SPL | 123 dB SPL | 122 dB SPL | 122 dB SPL |
| Acoustic Peak:      | 14 Watts   | 22 Watts   | 28 Watts   | 22 Watts   | 22 Watts   |
| Acoustic Long Term: | 6 Watts    | 9 Watts    | 11 Watts   | 9 Watts    | 9 Watts    |

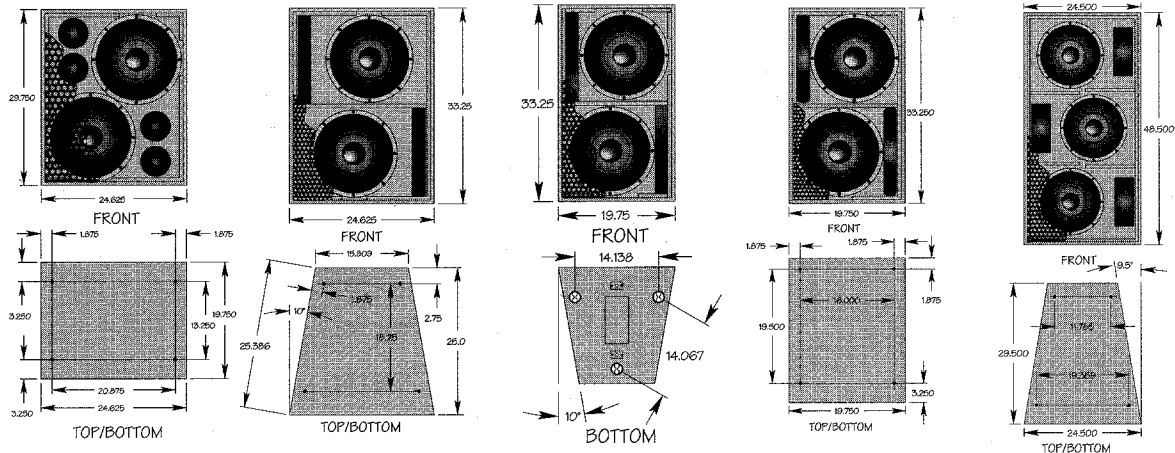
## Additional Descriptive Data

|                          |   |   |   |   |  |
|--------------------------|---|---|---|---|--|
| Grill:                   | Vinyl Coated Perforated Steel                       |   |   |   |  |
| Finish:                  | Catalyzed Black Polyurethane                        |   |   |   |  |
| Input Connectors:        | Barrier Strip & Banana Test Points                  | Barrier Strip & Banana Test Points                  | Barrier Strip & Banana Test Points                  | Barrier Strip & Banana Test Points                  | Barrier Strip & NL4 & Banana Test Points           |
| Optional Configurations: | SB120RD1<br>Portable Version w/ Handles & NL4 Input | SB150RD1<br>Portable Version w/ Handles & NL4 Input | BV150RD1<br>Portable Version w/ Handles & NL4 Input | SB180RD1<br>Portable Version w/ Handles & NL4 Input | SB330RD<br>Portable Version w/ Handles & Fly-Clips |

## Dimensions & Weights

|                  |                              |                               |                               |                               |                              |
|------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|
| Shape:           | Rectangular                  | Rectangular                   | Rectangular                   | Rectangular                   | Trapezoidal                  |
| Internal Volume: | 2.0 ft <sup>3</sup> (58 ltr) | 4.2 ft <sup>3</sup> (118 ltr) | 4.2 ft <sup>3</sup> (118 ltr) | 6.6 ft <sup>3</sup> (187 ltr) | 3.2 ft <sup>3</sup> (91 ltr) |
| Height:          | 22.500 in<br>572 mm          | 24.625 in<br>625 mm           | 24.625 in<br>625 mm           | 29.875 in<br>756 mm           | 27.500 in<br>699 mm          |
| Width:           | 14.750 in<br>375 mm          | 19.625 in<br>498 mm           | 19.625 in<br>498 mm           | 24.625 in<br>625 mm           | 24.375 in<br>619 mm          |
| Depth:           | 11.750 in<br>298 mm          | 19.000 in<br>483 mm           | 19.000 in<br>483 mm           | 19.750 in<br>502 mm           | 14.750 in<br>375 mm          |
| Back Width:      | 14.750 in<br>375 mm          | 19.625 in<br>498 mm           | 19.625 in<br>498 mm           | 24.625 in<br>625 mm           | 19.000 in<br>483 mm          |
| Net Weight:      | 53 lbs (24.1 kg)             | 76 lbs (34.5 kg)              | 69 lbs (31.4 kg)              | 95 lbs (43.2 kg)              | 81 lbs (36.8 kg)             |
| Shipping Weight: | 57 lbs (25.9 kg)             | 85 lbs (38.6 kg)              | 77 lbs (35.0 kg)              | 105 lbs (47.7 kg)             | 90 lbs (40.9 kg)             |

# Product Specifications



|  |  |   |  |  |
|--|--|---|--|--|
| <b>SB250PD2</b><br>Compact High Output Subwoofer<br>Dual 15-in | <b>BV525PD2</b><br>Compact High Output Low Frequency<br>Dual 15-in | <b>SB600RD2</b><br>Compact High Output VATM Subwoofer<br>Dual 15-in | <b>SB625PD2</b><br>Compact High Output Subwoofer<br>Dual 15-in | <b>BV535iPD3</b><br>Very High Output Low Frequency<br>Triple 15-in |
|--|--|---|--|--|

|                |        |                |                |                |
|----------------|--------|----------------|----------------|----------------|
| 33 Hz (46 Hz†) | 50 Hz  | 39 Hz (55 Hz†) | 33 Hz (44 Hz†) | 35 Hz (43 Hz†) |
| 30 Hz (33 Hz†) | 35 Hz  | 30 Hz (42 Hz†) | 30 Hz (34 Hz†) | 30 Hz (33 Hz†) |
| 200 Hz         | 500 Hz | 200 Hz         | 200 Hz         | 350 Hz         |

|           |            |           |           |             |
|-----------|------------|-----------|-----------|-------------|
| 98 dB SPL | 101 dB SPL | 98 dB SPL | 98 dB SPL | 103 dB SPL  |
| 4.40%     | 7.00%      | 4.40%     | 4.40%     | 10.50%      |
| 4 or 2x 8 | 4 or 2x 8  | 4 or 2x 8 | 4 or 2x 8 | 2.7 or 3x 8 |

|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| 800 Watts   | 600 Watts   | 800 Watts   | 800 Watts   | 900 Watts   |
| 2,000 Watts | 1,500 Watts | 2,000 Watts | 2,000 Watts | 2,200 Watts |

|            |            |            |            |            |
|------------|------------|------------|------------|------------|
| 131 dB SPL | 133 dB SPL | 131 dB SPL | 131 dB SPL | 136 dB SPL |
| 127 dB SPL | 129 dB SPL | 127 dB SPL | 127 dB SPL | 133 dB SPL |
| 88 Watts   | 105 Watts  | 88 Watts   | 88 Watts   | 231 Watts  |
| 35 Watts   | 42 Watts   | 35 Watts   | 35 Watts   | 95 Watts   |

Vinyl Coated Perforated Steel

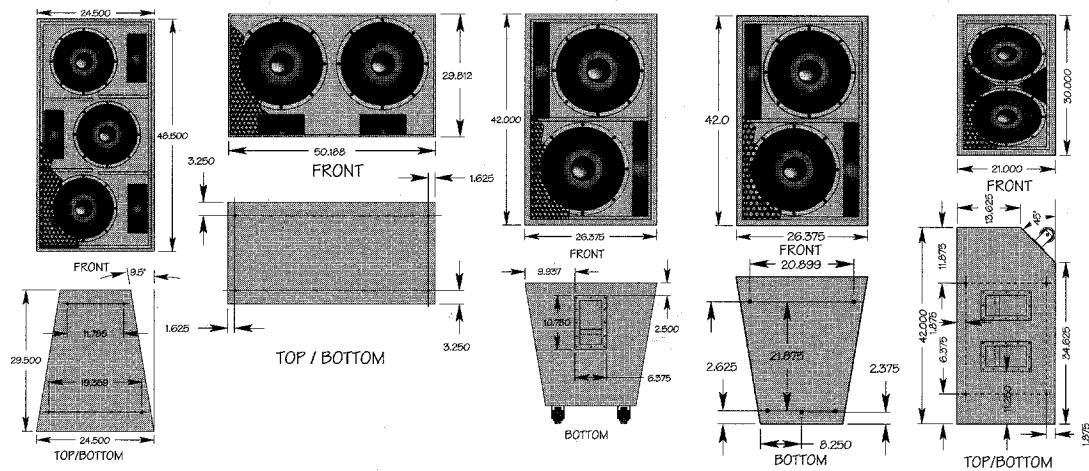
Catalyzed Black Polyurethane

|   |                                    |                              |                                    |                                    |
|---|------------------------------------|------------------------------|------------------------------------|------------------------------------|
| Barrier Strip & Banana Test Points                        | Barrier Strip & Banana Test Points | EP4 M&F & Banana Test Points | Barrier Strip & Banana Test Points | Barrier Strip & Banana Test Points |
| SB250RD2<br>Portable Version<br>w/ Handles<br>& NL4 Input |                                    |                              |                                    |                                    |

|  |  |  |  |   |
|--|--|--|--|---|
| Rectangular<br>6.9 ft <sup>3</sup> (194 ltr) | Rectangular<br>7.6 ft <sup>3</sup> (216 ltr) | Trapezoidal<br>4.7 ft <sup>3</sup> (134 ltr) | Rectangular<br>7.6 ft <sup>3</sup> (216 ltr) | Trapezoidal<br>13.2 ft <sup>3</sup> (375 ltr) |
| 29.750 in<br>756 mm                          | 33.250 in<br>845 mm                          | 33.250 in<br>845 mm                          | 33.250 in<br>845 mm                          | 48.500 in<br>1232 mm                          |
| 24.625 in<br>625 mm                          | 24.625 in<br>625 mm                          | 19.750 in<br>502 mm                          | 19.750 in<br>502 mm                          | 24.500 in<br>622 mm                           |
| 19.750 in<br>502 mm                          | 25.000 in<br>635 mm                          | 19.750 in<br>502 mm                          | 24.625 in<br>625 mm                          | 29.500 in<br>749 mm                           |
| 24.625 in<br>625 mm                          | 15.809 in<br>402 mm                          | 12.750 in<br>324 mm                          | 19.750 in<br>502 mm                          | 12.500 in<br>318 mm                           |
| 119 lbs (54.1 kg)<br>129 lbs (58.6 kg)       | 116 lbs (52.7 kg)<br>126 lbs (57.3 kg)       | 112 lbs (50.9 kg)<br>122 lbs (55.5 kg)       | 130 lbs (59.1 kg)<br>142 lbs (64.5 kg)       | 197 lbs (89.5 kg)<br>210 lbs (95.5 kg)        |

# Low Frequency Systems

# Product Specifications



| Model        | SB535iPD3                  | SB528PD2                                | SB850RD2                  | SB850PD2                  | SB1000RD2                 |
|--------------|----------------------------|---|---------------------------|---------------------------|---------------------------|
| Application: | Very High Output Subwoofer | High Output Extended Response Subwoofer | High Output VA™ Subwoofer | High Output VA™ Subwoofer | High Output VA™ Subwoofer |
| Description: | Triple 15-in               | Dual 18-in                              | Dual 18-in                | Dual 18-in                | Dual 18-in                |

| Frequency Response   |                |                |                |                |                |
|----------------------|----------------|----------------|----------------|----------------|----------------|
| -3 dB (+ no CCEP™):  | 35 Hz (42 Hz†) | 27 Hz (42 Hz†) | 32 Hz (39 Hz†) | 30 Hz (37 Hz†) | 30 Hz (42 Hz†) |
| -10 dB (+ no CCEP™): | 28 Hz (32 Hz†) | 22 Hz (24 Hz†) | 27 Hz (30 Hz†) | 25 Hz (28 Hz†) | 25 Hz (27 Hz†) |
| Highest Crossover:   | 350 Hz         | 150 Hz         | 150 Hz         | 150 Hz         | 100 Hz         |

| Efficiency, Sensitivity & Efficiency |             |           |           |           |           |
|--------------------------------------|-------------|-----------|-----------|-----------|-----------|
| Sensitivity 1W @ 1m:                 | 100 dB SPL  | 99 dB SPL | 99 dB SPL | 99 dB SPL | 99 dB SPL |
| 1/2 Space Efficiency:                | 6.60%       | 4.40%     | 4.40%     | 4.40%     | 4.40%     |
| Nominal Impedance:                   | 2.7 or 3x 8 | 4 or 2x 8 | 4 or 2x 8 | 4 or 2x 8 | 4 or 2x 8 |

| Power Handling    |             |             |             |             |             |
|-------------------|-------------|-------------|-------------|-------------|-------------|
| 100 Hr Sine Wave: | 1,200 Watts | 800 Watts   | 800 Watts   | 800 Watts   | 800 Watts   |
| AES Standard:     | 3,000 Watts | 2,000 Watts | 2,000 Watts | 2,000 Watts | 2,000 Watts |

| Maximum Output      |            |            |            |            |            |
|---------------------|------------|------------|------------|------------|------------|
| SPL Peak:           | 135 dB SPL | 132 dB SPL | 132 dB SPL | 132 dB SPL | 132 dB SPL |
| SPL Long Term:      | 131 dB SPL | 128 dB SPL | 128 dB SPL | 128 dB SPL | 128 dB SPL |
| Acoustic Peak:      | 198 Watts  | 88 Watts   | 88 Watts   | 88 Watts   | 88 Watts   |
| Acoustic Long Term: | 79 Watts   | 35 Watts   | 35 Watts   | 35 Watts   | 35 Watts   |

| Additional Descriptive Data |  |                                    |                              |                                    |                              |
|-----------------------------|--|------------------------------------|------------------------------|------------------------------------|------------------------------|
| Grill:                      | Vinyl Coated Perforated Steel                  |                                    |                              |                                    |                              |
| Finish:                     | Catalyzed Black Polyurethane                   |                                    |                              |                                    |                              |
| Input Connectors            | Barrier Strip & Banana Test Points             | Barrier Strip & Banana Test Points | EP4 M&F & Banana Test Points | Barrier Strip & Banana Test Points | EP4 M&F & Banana Test Points |
| Optional Configurations:    | SB528iR<br>Portable Configuration with Handles |                                    |                              |                                    |                              |

| Dimensions & Weights |                                |                                |                                |                                |                                |
|----------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Shape:               | Trapezoidal                    | Rectangular                    | Trapezoidal                    | Trapezoidal                    | Rectangular                    |
| Internal Volume:     | 13.2 ft <sup>3</sup> (375 ltr) | 13.6 ft <sup>3</sup> (384 ltr) | 10.8 ft <sup>3</sup> (306 ltr) | 12.5 ft <sup>3</sup> (354 ltr) | 10.0 ft <sup>3</sup> (283 ltr) |
| Height:              | 48.500 in<br>1232 mm           | 29.812 in<br>757 mm            | 42.000 in<br>1067 mm           | 42.000 in<br>1067 mm           | 29.750 in<br>756 mm            |
| Width:               | 24.500 in<br>622 mm            | 50.188 in<br>1275 mm           | 26.375 in<br>670 mm            | 26.375 in<br>670 mm            | 21.000 in<br>533 mm            |
| Depth:               | 29.500 in<br>749 mm            | 24.625 in<br>625 mm            | 29.500 in<br>749 mm            | 29.500 in<br>749 mm            | 42.000 in<br>1067 mm           |
| Back Width:          | 12.500 in<br>318 mm            | 50.188 in<br>1275 mm           | 18.000 in<br>457 mm            | 16.500 in<br>419 mm            | 21.000 in<br>533 mm            |
| Net Weight:          | 218 lbs (99.1 kg)              | 200 lbs (90.9 kg)              | 173 lbs (78.6 kg)              | 173 lbs (78.6 kg)              | 170 lbs (77.3 kg)              |
| Shipping Weight:     | 231 lbs (105.0 kg)             | 214 lbs (97.3 kg)              | 190 lbs (86.4 kg)              | 190 lbs (86.4 kg)              | 180 lbs (81.8 kg)              |