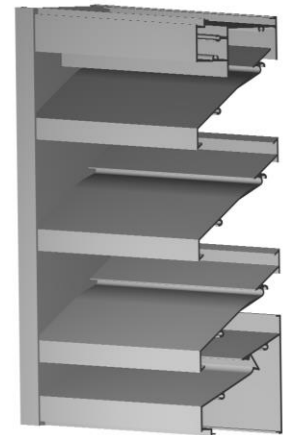
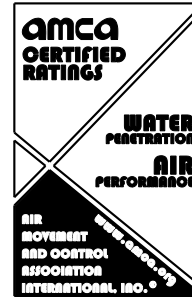


Construction Specialties Inc. certifies that the louver model A4110- A4130 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings and water penetration ratings.

**TEST DATA:**

For a 4 Foot by 4 Foot Unit. Tested with mill finish and no screen

- Free area = 7.36 ft<sup>2</sup> (0.684 m<sup>2</sup>)
- Percent free area = 46.0%
- Free area velocity at the point of beginning water penetration (@0.01oz. / sq. ft. of free area based on a 15 minute interval test) = 647 FPM (3.29 m/s)
- Maximum recommended air intake velocity = 447 FPM (2.27 m/s)  
Air volume @ 447 FPM free area velocity = 3290 CFM (1.55 m<sup>3</sup>/s)  
Pressure drop @ 447 FPM free area velocity = 0.04 in. H<sub>2</sub>O (9.9 Pa)
- Maximum recommended air exhaust velocity = 1653 FPM (8.40 m/s)  
Air Volume @ 1653 FPM free area velocity = 12166 CFM (5.74 m<sup>3</sup>/s)  
Pressure drop @ 1653 FPM free area velocity = 0.50 in. H<sub>2</sub>O (124.2 Pa)



**SUGGESTED SPECIFICATIONS:**

**GENERAL:** Furnish and install where indicated on the drawings C/S 4" (101.6 mm) STEP BLADE FIXED EXTRUDED MULLION LOUVER **MODELS A4110-A4130** as manufactured by Construction Specialties, Inc. Lebanon, New Jersey. Complete details shall be submitted to the architect for approval prior to fabrication. The supplier must be a member of AMCA or BSRIA.

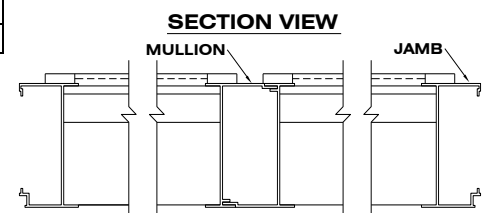
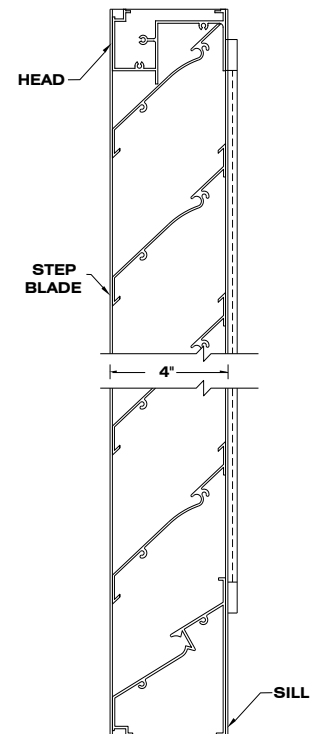
**MATERIAL:** Heads, sills and jambs to be one piece structural members of 6063-T6 alloy with integral caulking slot and retaining beads. Mullions shall be sliding interlock type. Blades to be one-piece extrusions with reinforcing bosses. Extrusion thicknesses shall be as follows: Heads, Sills, jambs, and mullions: 0.081" (2.06 mm) or 0.125" (3.18 mm) Fixed Blades: 0.068" (1.73 mm) or 0.110" (2.79 mm) All fasteners to be aluminum or stainless steel. All louvers to be furnished with 5/8" (15.87 mm) flattened expanded mesh, aluminum bird screen with a 0.055" (1.4 mm) thick extruded aluminum frame. Screens and screen frames to be standard mill finish.

**STRUCTURAL DESIGN:** Structural supports shall be designed and furnished by the louver manufacturer to carry a wind load of not less than \_\_\_\_\_ psf (Pascals). (Note: If this paragraph is omitted or if the design wind load is not specified, the louvers will be manufactured in self-supporting units up to a maximum of 5' (1524 mm) wide by 8' (2438 mm) high. Any additional structural supports required to adequately secure these units within the opening shall be the responsibility of others.)

**TEST DATA:** The louver manufacturer shall submit test data on a 4' x 4' (1.22 m x 1.22 m) unit showing that the louver conforms to the following: (Based on 15 min test duration)

Free area:	7.36 ft <sup>2</sup> (0.684 m <sup>2</sup> )
Free area velocity at point of beginning water penetration (0.01 oz/ft <sup>2</sup> ):	647 FPM (3.29 m/s)
Intake pressure drop at 0.01 oz./ft <sup>2</sup> free area velocity:	0.09 in. H <sub>2</sub> O (22.4 Pa)
Exhaust pressure drop at 1000 FPM (5.08 m/s) free area velocity:	0.18 in. H <sub>2</sub> O (44.5 Pa)

**FINISH:** All louvers shall be finished with C/S Powder Coat, a coating to be 1.5 to 3 mil. thick full strength **100% resin Fluoropolymer coating. Finish to allow zero VOCs** to be emitted into facility of application. Finish to adhere to a 4H Hardness rating. All finishing procedures shall be one continuous operation in the plant of the manufacturer. **The coating shall meet or exceed all requirements of AAMA specification 2605** "Voluntary Specification for High Performance Organic Coatings on Architectural extrusions and Panels." The louver manufacturer shall supply an industry standard **20-year limited warranty against failure or excessive fading** of the Fluoropolymer Powder Coat finish. This limited warranty shall begin on the date of material shipment.



**PLAN VIEW**  
Discharge Coefficient  
Intake Cd = 0.29 (Class 3)  
AMCA certifies the coefficient class only

# PERFORMANCE DATA MODEL A4110-A4130

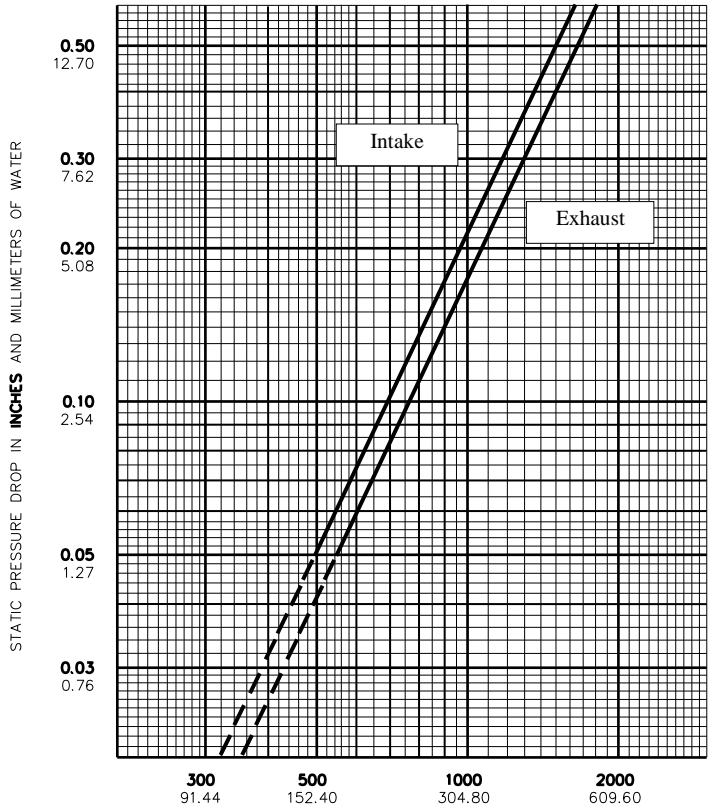
# Water Penetration Statement

## Width in Inches and Meters

	12	18	24	30	36	42	48	54	60
	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
<b>18</b>	<b>0.37</b>	<b>0.66</b>	<b>0.94</b>	<b>1.22</b>	<b>1.50</b>	<b>1.78</b>	<b>2.06</b>	<b>2.34</b>	<b>2.62</b>
0.46	0.03	0.06	0.09	0.11	0.14	0.17	0.19	0.22	0.24
<b>24</b>	<b>0.57</b>	<b>1.00</b>	<b>1.43</b>	<b>1.86</b>	<b>2.30</b>	<b>2.73</b>	<b>3.16</b>	<b>3.59</b>	<b>4.02</b>
0.61	0.05	0.09	0.13	0.17	0.21	0.25	0.29	0.33	0.37
<b>30</b>	<b>0.75</b>	<b>1.31</b>	<b>1.88</b>	<b>2.44</b>	<b>3.01</b>	<b>3.57</b>	<b>4.13</b>	<b>4.70</b>	<b>5.26</b>
0.76	0.07	0.12	0.17	0.23	0.28	0.33	0.38	0.44	0.49
<b>36</b>	<b>0.91</b>	<b>1.59</b>	<b>2.27</b>	<b>2.95</b>	<b>3.62</b>	<b>4.30</b>	<b>4.98</b>	<b>5.66</b>	<b>6.34</b>
0.91	0.08	0.15	0.21	0.27	0.34	0.40	0.46	0.53	0.59
<b>42</b>	<b>1.15</b>	<b>2.01</b>	<b>2.87</b>	<b>3.74</b>	<b>4.60</b>	<b>5.46</b>	<b>6.32</b>	<b>7.18</b>	<b>8.05</b>
1.07	0.11	0.19	0.27	0.35	0.43	0.51	0.59	0.67	0.75
<b>48</b>	<b>1.34</b>	<b>2.34</b>	<b>3.34</b>	<b>4.35</b>	<b>5.35</b>	<b>6.35</b>	<b>7.36</b>	<b>8.36</b>	<b>9.36</b>
1.22	0.12	0.22	0.31	0.40	0.50	0.59	0.68	0.78	0.87
<b>54</b>	<b>1.53</b>	<b>2.67</b>	<b>3.82</b>	<b>4.96</b>	<b>6.10</b>	<b>7.25</b>	<b>8.39</b>	<b>9.54</b>	<b>10.68</b>
1.37	0.14	0.25	0.35	0.46	0.57	0.67	0.78	0.89	0.99
<b>60</b>	<b>1.68</b>	<b>2.94</b>	<b>4.20</b>	<b>5.46</b>	<b>6.72</b>	<b>7.98</b>	<b>9.25</b>	<b>10.51</b>	<b>11.77</b>
1.52	0.16	0.27	0.39	0.51	0.62	0.74	0.86	0.98	1.09
<b>66</b>	<b>1.92</b>	<b>3.37</b>	<b>4.81</b>	<b>6.25</b>	<b>7.70</b>	<b>9.14</b>	<b>10.58</b>	<b>12.03</b>	<b>13.47</b>
1.68	0.18	0.31	0.45	0.58	0.72	0.85	0.98	1.12	1.25
<b>72</b>	<b>2.11</b>	<b>3.70</b>	<b>5.28</b>	<b>6.86</b>	<b>8.45</b>	<b>10.03</b>	<b>11.62</b>	<b>13.20</b>	<b>14.78</b>
1.83	0.20	0.34	0.49	0.64	0.78	0.93	1.08	1.23	1.37
<b>78</b>	<b>2.30</b>	<b>4.03</b>	<b>5.75</b>	<b>7.48</b>	<b>9.20</b>	<b>10.93</b>	<b>12.65</b>	<b>14.38</b>	<b>16.11</b>
1.98	0.21	0.37	0.53	0.69	0.85	1.02	1.18	1.34	1.50
<b>84</b>	<b>2.46</b>	<b>4.30</b>	<b>6.14</b>	<b>7.98</b>	<b>9.82</b>	<b>11.66</b>	<b>13.51</b>	<b>15.35</b>	<b>17.19</b>
2.13	0.23	0.40	0.57	0.74	0.91	1.08	1.25	1.43	1.60
<b>90</b>	<b>2.69</b>	<b>4.70</b>	<b>6.72</b>	<b>8.73</b>	<b>10.75</b>	<b>12.76</b>	<b>14.78</b>	<b>16.79</b>	<b>18.80</b>
2.29	0.25	0.44	0.62	0.81	1.00	1.19	1.37	1.56	1.75
<b>96</b>	<b>2.89</b>	<b>5.05</b>	<b>7.22</b>	<b>9.38</b>	<b>11.55</b>	<b>13.71</b>	<b>15.88</b>	<b>18.04</b>	<b>20.21</b>
2.44	0.27	0.47	0.67	0.87	1.07	1.27	1.48	1.68	1.88
<b>102</b>	<b>3.08</b>	<b>5.38</b>	<b>7.69</b>	<b>10.00</b>	<b>12.30</b>	<b>14.61</b>	<b>16.91</b>	<b>19.22</b>	<b>21.53</b>
2.59	0.29	0.50	0.71	0.93	1.14	1.36	1.57	1.79	2.00
<b>108</b>	<b>3.23</b>	<b>5.65</b>	<b>8.08</b>	<b>10.50</b>	<b>12.92</b>	<b>15.34</b>	<b>17.77</b>	<b>20.19</b>	<b>22.61</b>
2.74	0.30	0.53	0.75	0.98	1.20	1.43	1.65	1.88	2.10
<b>114</b>	<b>3.46</b>	<b>6.06</b>	<b>8.65</b>	<b>11.25</b>	<b>13.84</b>	<b>16.44</b>	<b>19.04</b>	<b>21.63</b>	<b>24.23</b>
2.90	0.32	0.56	0.80	1.05	1.29	1.53	1.77	2.01	2.25
<b>120</b>	<b>3.66</b>	<b>6.41</b>	<b>9.15</b>	<b>11.90</b>	<b>14.65</b>	<b>17.39</b>	<b>20.14</b>	<b>22.88</b>	<b>25.63</b>
3.05	0.34	0.60	0.85	1.11	1.36	1.62	1.87	2.13	2.38
<b>126</b>	<b>3.85</b>	<b>6.74</b>	<b>9.63</b>	<b>12.51</b>	<b>15.40</b>	<b>18.29</b>	<b>21.18</b>	<b>24.06</b>	<b>26.95</b>
3.20	0.36	0.63	0.89	1.16	1.43	1.70	1.97	2.24	2.50
<b>132</b>	<b>4.01</b>	<b>7.01</b>	<b>10.01</b>	<b>13.02</b>	<b>16.02</b>	<b>19.02</b>	<b>22.03</b>	<b>25.03</b>	<b>28.04</b>
3.35	0.37	0.65	0.93	1.21	1.49	1.77	2.05	2.33	2.60
<b>138</b>	<b>4.24</b>	<b>7.41</b>	<b>10.59</b>	<b>13.77</b>	<b>16.94</b>	<b>20.12</b>	<b>23.30</b>	<b>26.47</b>	<b>29.65</b>
3.51	0.39	0.69	0.98	1.28	1.57	1.87	2.16	2.46	2.75
<b>144</b>	<b>4.44</b>	<b>7.76</b>	<b>11.09</b>	<b>14.42</b>	<b>17.75</b>	<b>21.07</b>	<b>24.40</b>	<b>27.73</b>	<b>31.05</b>
3.66	0.41	0.72	1.03	1.34	1.65	1.96	2.27	2.58	2.89
<b>150</b>	<b>4.62</b>	<b>8.09</b>	<b>11.56</b>	<b>15.03</b>	<b>18.50</b>	<b>21.97</b>	<b>25.44</b>	<b>28.91</b>	<b>32.37</b>
3.81	0.43	0.75	1.07	1.40	1.72	2.04	2.36	2.69	3.01
<b>156</b>	<b>4.78</b>	<b>8.36</b>	<b>11.95</b>	<b>15.53</b>	<b>19.12</b>	<b>22.70</b>	<b>26.29</b>	<b>29.87</b>	<b>33.46</b>
3.96	0.44	0.78	1.11	1.44	1.78	2.11	2.44	2.78	3.11
<b>162</b>	<b>5.01</b>	<b>8.77</b>	<b>12.53</b>	<b>16.28</b>	<b>20.04</b>	<b>23.80</b>	<b>27.56</b>	<b>31.32</b>	<b>35.07</b>
4.11	0.47	0.81	1.16	1.51	1.86	2.21	2.56	2.91	3.26
<b>168</b>	<b>5.18</b>	<b>9.06</b>	<b>12.95</b>	<b>16.83</b>	<b>20.72</b>	<b>24.60</b>	<b>28.48</b>	<b>32.37</b>	<b>36.25</b>
4.27	0.48	0.84	1.20	1.56	1.92	2.29	2.65	3.01	3.37
<b>174</b>	<b>5.40</b>	<b>9.45</b>	<b>13.50</b>	<b>17.55</b>	<b>21.60</b>	<b>25.65</b>	<b>29.70</b>	<b>33.75</b>	<b>37.80</b>
4.42	0.50	0.88	1.25	1.63	2.01	2.38	2.76	3.14	3.51
<b>180</b>	<b>5.55</b>	<b>9.72</b>	<b>13.89</b>	<b>18.05</b>	<b>22.22</b>	<b>26.38</b>	<b>30.55</b>	<b>34.72</b>	<b>38.88</b>
4.57	0.52	0.90	1.29	1.68	2.06	2.45	2.84	3.23	3.61
<b>186</b>	<b>5.75</b>	<b>10.07</b>	<b>14.38</b>	<b>18.69</b>	<b>23.01</b>	<b>27.32</b>	<b>31.63</b>	<b>35.95</b>	<b>40.26</b>
4.72	0.53	0.94	1.34	1.74	2.14	2.54	2.94	3.34	3.74
<b>192</b>	<b>5.95</b>	<b>10.42</b>	<b>14.88</b>	<b>19.35</b>	<b>23.81</b>	<b>28.28</b>	<b>32.74</b>	<b>37.21</b>	<b>41.68</b>
4.88	0.55	0.97	1.38	1.80	2.21	2.63	3.04	3.46	3.87
<b>198</b>	<b>6.17</b>	<b>10.81</b>	<b>15.44</b>	<b>20.07</b>	<b>24.70</b>	<b>29.33</b>	<b>33.96</b>	<b>38.59</b>	<b>43.22</b>
5.03	0.57	1.00	1.43	1.86	2.29	2.72	3.15	3.59	4.02

Height in Inches and Meters

AMCA defines the point of beginning water penetration as the free area velocity at which the AMCA water test has yielded 0.01 or less ounces of water per square foot of louver free area during a 15-minute test period.



AIR VELOCITY IN FEET AND METERS PER MINUTE THROUGH FREE AREA

For a 48" X 48" sized louver tested to figure 5.5.  
Data corrected to standard air density.

**Construction Specialties, Inc.**  
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call C/S International (908) 236-0800

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A4110-A4130-7

Upper Numerals English Units/Lower Numerals Metric Units