

Metl-Span CF-42 Panel													
CF Panel	Span Condition	Design Criteria	LSD (Limit State Design), PSF										
			Panel Span (ft)										
			5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0
42" wide  2" thick	Two Spans	Bending & Shear	81.2	66.3	55.9	48.3	42.6	38.0	34.3	28.4	23.6	20.0	17.2
		Connection FP1	44.3	36.2	30.5	26.4	23.2	20.7	18.7	17.1	15.7	14.5	13.5
		Connection FP2	64.8	52.9	44.6	38.6	34.0	30.3	27.4	25.0	23.0	20.0	17.2
		<i>Deflection (L/180)</i>	<i>69.1</i>	<i>54.5</i>	<i>44.1</i>	<i>36.4</i>	<i>30.4</i>	<i>25.7</i>	<i>22.0</i>	<i>18.9</i>	<i>16.3</i>	<i>14.2</i>	<i>12.4</i>
	Three or More Spans	Bending & Shear	79.8	65.7	55.8	48.6	43.0	38.6	35.0	32.0	27.2	23.2	20.1
		Connection FP1	46.4	38.4	32.8	28.6	25.4	22.8	20.7	18.9	17.5	16.2	15.1
		Connection FP2	67.9	56.2	48.0	41.8	37.1	33.3	30.2	27.7	25.5	23.2	20.1
		<i>Deflection (L/180)</i>	<i>69.9</i>	<i>54.9</i>	<i>44.2</i>	<i>36.1</i>	<i>29.9</i>	<i>25.0</i>	<i>21.1</i>	<i>17.9</i>	<i>15.3</i>	<i>13.1</i>	<i>11.4</i>
42" wide  2.5" thick	Two Spans	Bending & Shear	94.1	76.8	64.8	55.9	49.1	43.8	39.5	36.0	32.3	27.2	23.3
		Connection FP1	46.8	38.2	32.2	27.8	24.4	21.8	19.7	17.9	16.5	15.2	14.2
		Connection FP2	66.6	54.4	45.9	39.6	34.8	31.0	28.0	25.5	23.4	21.7	20.2
		<i>Deflection (L/180)</i>	<i>87.2</i>	<i>69.3</i>	<i>56.6</i>	<i>47.1</i>	<i>39.8</i>	<i>34.0</i>	<i>29.4</i>	<i>25.5</i>	<i>22.3</i>	<i>19.6</i>	<i>17.3</i>
	Three or More Spans	Bending & Shear	92.1	75.7	64.2	55.8	49.3	44.2	40.0	36.6	33.7	30.9	26.7
		Connection FP1	48.5	40.2	34.2	29.8	26.4	23.7	21.5	19.7	18.2	16.9	15.7
		Connection FP2	69.1	57.2	48.7	42.5	37.6	33.8	30.7	28.1	25.9	24.0	22.4
		<i>Deflection (L/180)</i>	<i>88.2</i>	<i>70.1</i>	<i>57.1</i>	<i>47.3</i>	<i>39.6</i>	<i>33.6</i>	<i>28.7</i>	<i>24.6</i>	<i>21.3</i>	<i>18.5</i>	<i>16.2</i>
42" wide  3" thick	Two Spans	Bending & Shear	105.8	86.5	72.8	62.8	55.2	49.2	44.3	40.3	37.0	33.3	28.3
		Connection FP1	49.2	40.2	33.9	29.2	25.7	22.9	20.6	18.8	17.2	15.9	14.8
		Connection FP2	68.4	55.9	47.1	40.6	35.7	31.8	28.7	26.1	23.9	22.1	20.6
		<i>Deflection (L/180)</i>	<i>103.5</i>	<i>82.8</i>	<i>68.1</i>	<i>57.1</i>	<i>48.6</i>	<i>41.8</i>	<i>36.3</i>	<i>31.8</i>	<i>28.0</i>	<i>24.8</i>	<i>22.0</i>
	Three or More Spans	Bending & Shear	103.3	84.8	71.8	62.3	55.0	49.3	44.6	40.8	37.5	34.8	31.8
		Connection FP1	50.7	41.9	35.7	31.1	27.5	24.7	22.4	20.5	18.9	17.5	16.4
		Connection FP2	70.4	58.2	49.6	43.2	38.3	34.4	31.2	28.5	26.3	24.4	22.7
		<i>Deflection (L/180)</i>	<i>104.5</i>	<i>83.8</i>	<i>68.8</i>	<i>57.5</i>	<i>48.7</i>	<i>41.7</i>	<i>35.9</i>	<i>31.2</i>	<i>27.2</i>	<i>23.8</i>	<i>21.0</i>

### Notes

1. Based on CF-42 panel with 26 ga. Mesa or Flute exterior & 26 ga. Mesa interior face (min Fy = 33 ksi).
2. Fastener pattern FP1: CF panel clip with (2) 1/4"-14 Self-Drilling Tek 3 screws in min. 14 ga. steel or (2) 1/4"-14 Self-Drilling Tek 3 screws in min. 12 ga. steel. In lieu of self-drilling screws, self-tapping screws may be used.
3. Fastener pattern FP2: In addition to FP1, (1) FabLok located at 10.5" from panel sidelap.
4. Factored resistance inward load is the lower value of panel bending and shear resistance.
5. Factored resistance outward load is the lowest value of panel bending, shear and connection resistances for each fastener pattern.
6. Loads based on panel stress and deflection design criteria are derived from ASTM E-72 testing. The factored resistance loads are calculated with resistance factor of 0.5 and 0.4 for bending and shear stresses, respectively.
7. The panel and its connection strength was determined from ASTM E1592 testing and the factored resistance loads are calculated with resistance factor of 0.7.
8. Specified loads should not exceed the deflection load for L/180 limit.
9. The structural capacity of the purlins are not considered and must be examined independently.
10. Multiple spans are based on 3 or more spans conditions.

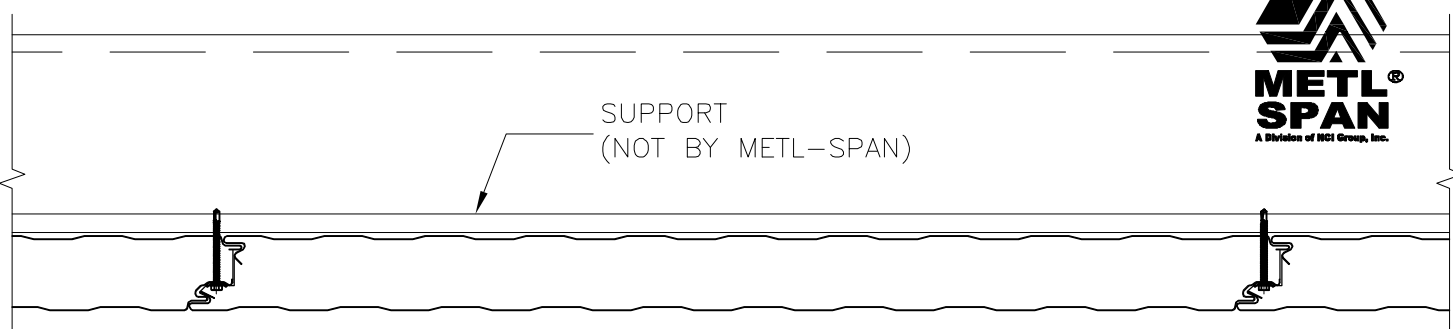
Metl-Span CF-42 Panel													
CF Panel	Span Condition	Design Criteria	LSD (Limit State Design), PSF										
			Panel Span (ft)										
			5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0
42" wide  4" thick	Two Spans	Bending & Shear	113.4	92.8	78.2	67.5	59.2	52.7	47.4	43.1	39.5	36.4	33.8
		Connection FP1	60.2	49.6	41.8	36.0	31.6	28.1	25.3	23.0	21.1	19.5	18.1
		Connection FP2	88.2	72.6	61.2	52.8	46.3	41.2	37.1	33.7	30.9	28.5	26.5
		<i>Deflection (L/180)</i>	<i>130.2</i>	<i>105.2</i>	<i>87.3</i>	<i>73.9</i>	<i>63.5</i>	<i>55.2</i>	<i>48.4</i>	<i>42.8</i>	<i>38.1</i>	<i>34.1</i>	<i>30.6</i>
	Three or More Spans	Bending & Shear	110.4	90.5	76.6	66.3	58.5	52.3	47.3	43.1	39.7	36.7	34.2
		Connection FP1	61.6	50.9	43.4	37.7	33.4	29.9	27.1	24.8	22.9	21.2	19.8
		Connection FP2	90.3	74.6	63.5	55.3	48.9	43.9	39.8	36.4	33.5	31.1	29.0
		<i>Deflection (L/180)</i>	<i>131.2</i>	<i>106.2</i>	<i>88.3</i>	<i>74.7</i>	<i>64.1</i>	<i>55.6</i>	<i>48.6</i>	<i>42.7</i>	<i>37.8</i>	<i>33.6</i>	<i>30.0</i>
42" wide  5" thick	Two Spans	Bending & Shear	129.9	106.6	90.0	77.7	68.1	60.6	54.5	49.5	45.3	41.8	38.8
		Connection FP1	59.2	50.2	42.6	36.7	32.2	28.7	25.8	23.4	21.5	19.8	18.3
		Connection FP2	86.7	73.5	62.4	53.8	47.2	42.0	37.8	34.3	31.4	29.0	26.9
		<i>Deflection (L/180)</i>	<i>148.7</i>	<i>121.0</i>	<i>101.1</i>	<i>86.1</i>	<i>74.4</i>	<i>65.1</i>	<i>57.5</i>	<i>51.2</i>	<i>45.9</i>	<i>41.4</i>	<i>37.4</i>
	Three or More Spans	Bending & Shear	126.7	103.8	87.8	75.9	66.8	59.7	53.9	49.2	45.2	41.8	38.9
		Connection FP1	60.9	51.4	43.7	38.0	33.6	30.1	27.3	25.0	23.0	21.3	19.8
		Connection FP2	89.3	75.3	64.0	55.7	49.3	44.1	40.0	36.6	33.7	31.2	29.1
		<i>Deflection (L/180)</i>	<i>149.5</i>	<i>121.9</i>	<i>102.0</i>	<i>87.0</i>	<i>75.3</i>	<i>65.8</i>	<i>58.1</i>	<i>51.6</i>	<i>46.1</i>	<i>41.4</i>	<i>37.3</i>
42" wide  6" thick	Two Spans	Bending & Shear	144.9	119.2	100.9	87.1	76.5	68.1	61.2	55.6	50.9	46.9	43.4
		Connection FP1	58.4	49.4	43.0	37.4	32.8	29.2	26.3	23.9	21.8	20.1	18.6
		Connection FP2	85.6	72.4	62.9	54.8	48.1	42.8	38.5	34.9	32.0	29.5	27.3
		<i>Deflection (L/180)</i>	<i>158.7</i>	<i>129.7</i>	<i>108.9</i>	<i>93.3</i>	<i>81.1</i>	<i>71.3</i>	<i>63.3</i>	<i>56.7</i>	<i>51.0</i>	<i>46.2</i>	<i>42.1</i>
	Three or More Spans	Bending & Shear	141.6	116.2	98.2	84.9	74.7	66.6	60.1	54.8	50.3	46.5	43.2
		Connection FP1	59.9	50.9	44.1	38.3	33.9	30.3	27.5	25.1	23.1	21.4	19.9
		Connection FP2	87.8	74.5	64.5	56.1	49.6	44.4	40.2	36.8	33.8	31.3	29.2
		<i>Deflection (L/180)</i>	<i>159.2</i>	<i>130.4</i>	<i>109.7</i>	<i>94.1</i>	<i>81.9</i>	<i>72.1</i>	<i>64.0</i>	<i>57.3</i>	<i>51.5</i>	<i>46.6</i>	<i>42.3</i>

### Notes

1. Based on CF-42 panel with 26 ga. Mesa or Flute exterior & 26 ga. Mesa interior face (min Fy = 33 ksi).
2. Fastener pattern FP1: CF panel clip with (2) 1/4"-14 Self-Drilling Tek 3 screws in min. 14 ga. steel or (2) 1/4"-14 Self-Drilling Tek 3 screws in min. 12 ga. steel. In lieu of self-drilling screws, self-tapping screws may be used.
3. Fastener pattern FP2: In addition to FP1, (1) FabLok located at 10.5" from panel sidelap.
4. Factored resistance inward load is the lower value of panel bending and shear resistance.
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SUPPORT  
(NOT BY METL-SPAN)



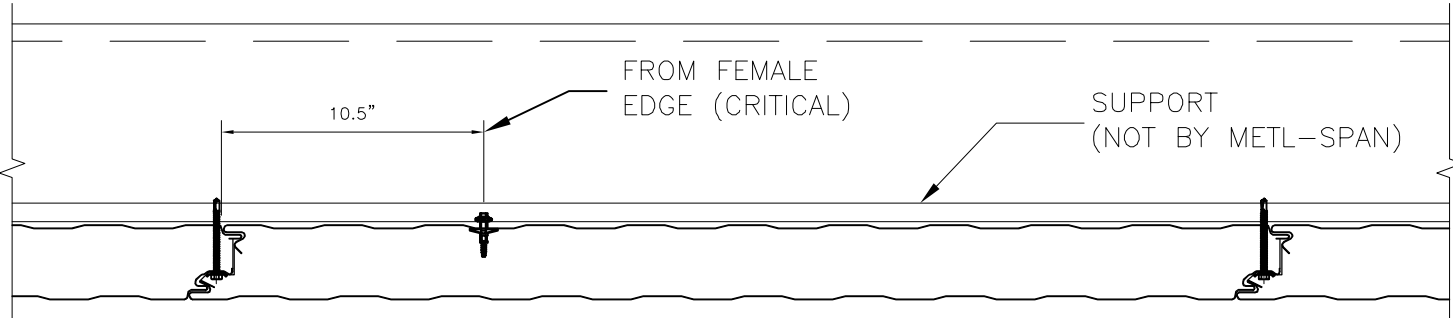
(FP1) SIDE JOINT CLIP ONLY

FROM FEMALE  
EDGE (CRITICAL)

SUPPORT  
(NOT BY METL-SPAN)

10.5"

10.5"

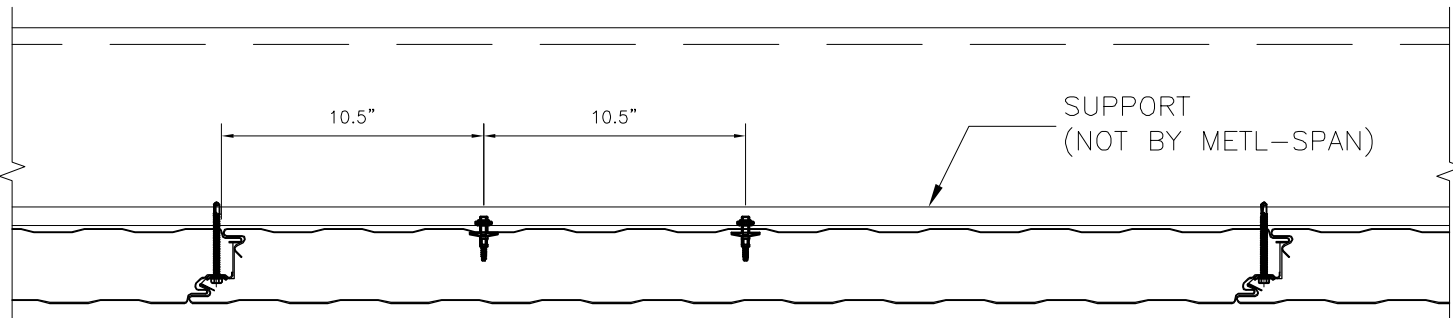


(FP2) SIDE JOINT AND (1) BLIND RIVET

SUPPORT  
(NOT BY METL-SPAN)

10.5"

10.5"



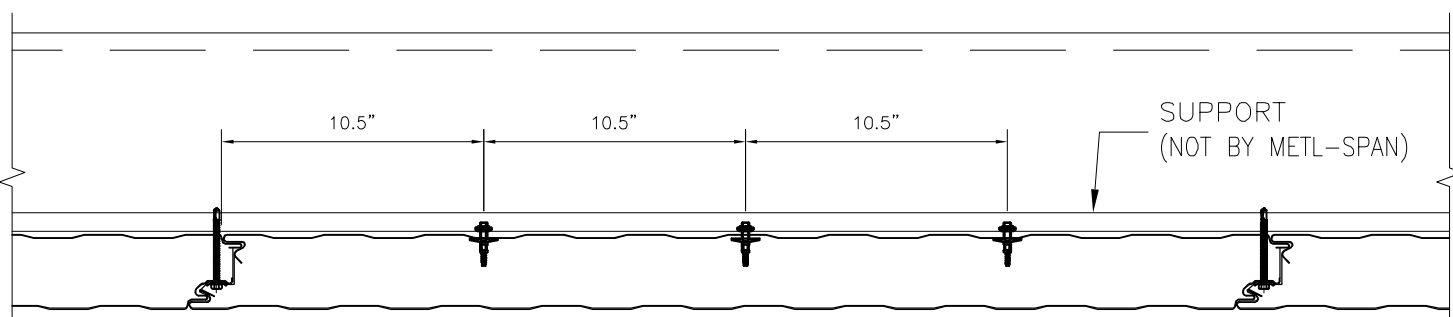
(FP3) SIDE JOINT AND (2) BLIND RIVETS

SUPPORT  
(NOT BY METL-SPAN)

10.5"

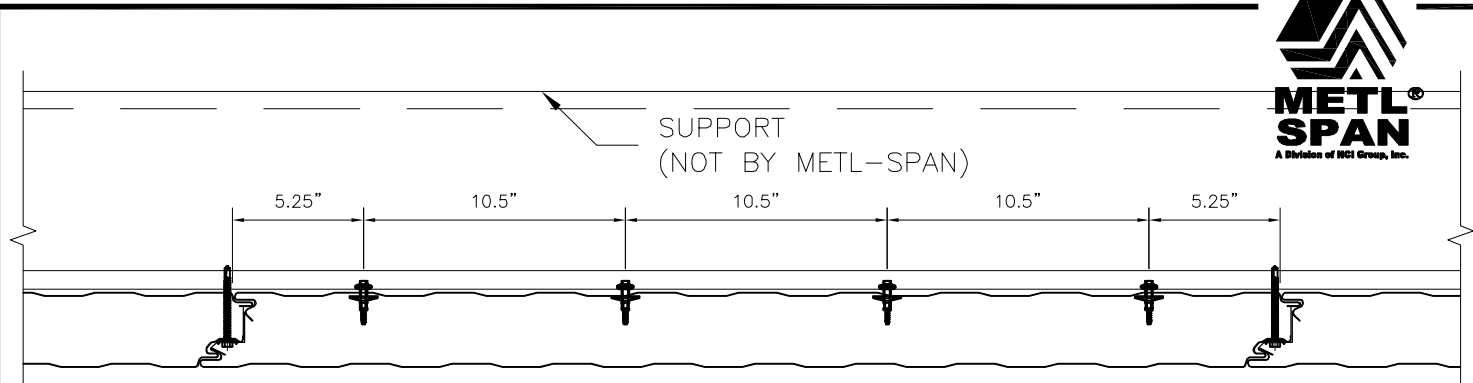
10.5"

10.5"

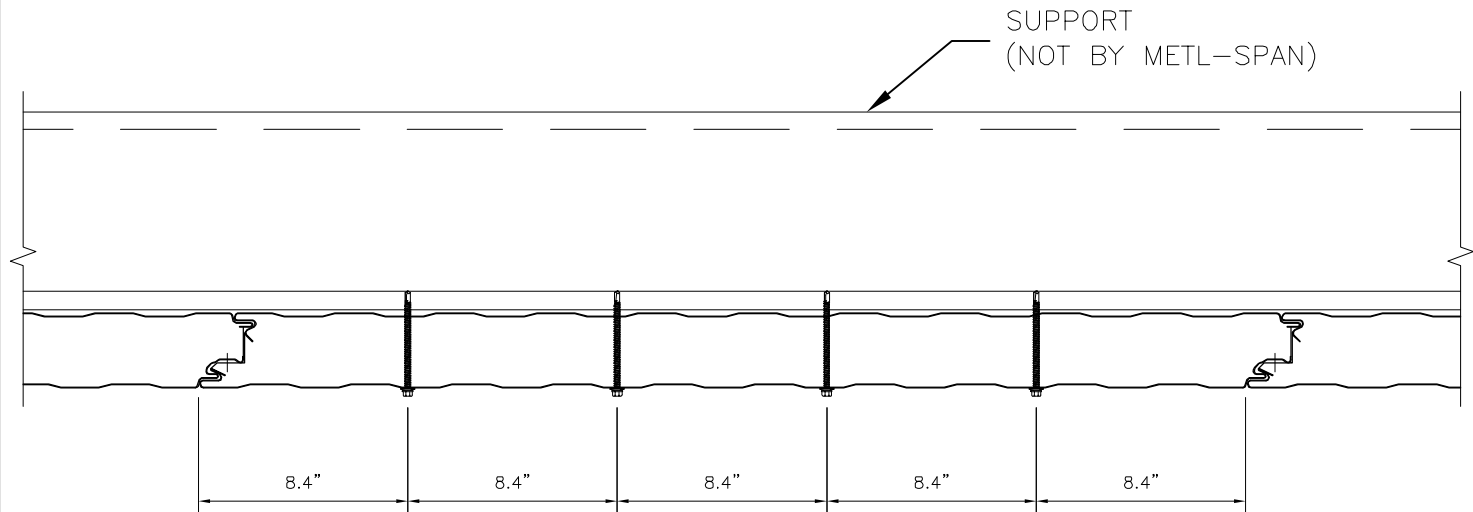


(FP4) SIDE JOINT AND (3) BLIND RIVETS

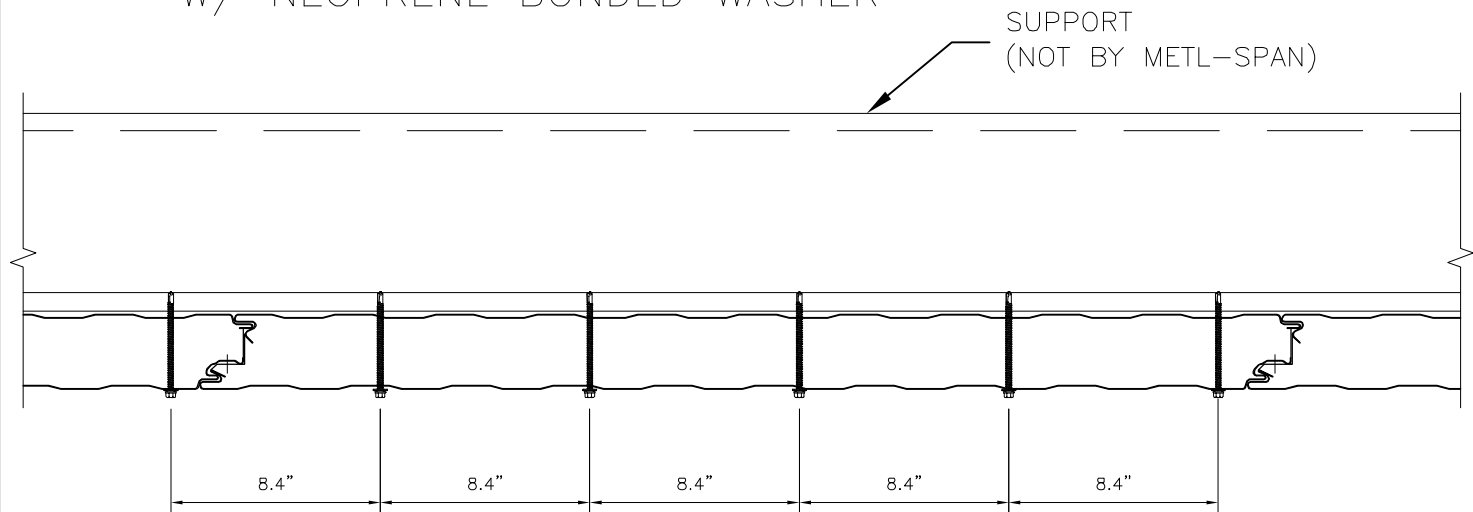
# CF42 FASTENING PATTERNS



(FP5) SIDE JOINT AND (4) BLIND RIVETS



(FP9) (4) SELF-DRILLING OR SELF-TAPPING FASTENERS  
W/ NEOPRENE BONDED WASHER



(FP10) (5) SELF-DRILLING OR SELF-TAPPING FASTENERS  
W/ NEOPRENE BONDED WASHER

## CF42 FASTENING PATTERNS