

## Physical/Structural Properties for Hat Furring Channels (DWFC)

Section	Gross Properties								Effective Properties		
	Fy (ksi)	Design Thickness (in)	Area (in <sup>2</sup> )	Weight (lb/ft)	Ix (in <sup>4</sup> )	Rx (in)	Iy (in <sup>4</sup> )	Ry (in)	Ix (in <sup>4</sup> )	Sx (in <sup>3</sup> )	Ma (Ft-lb)
DWFC088-18	33	0.0188	0.0702	0.239	0.0089	0.3565	0.0354	0.7101	0.0086	0.0160	26.4
DWFC088-30	33	0.0312	0.1149	0.391	0.0143	0.3527	0.0580	0.7105	0.0143	0.0307	50.5
DWFC088-43	33	0.0451	0.1617	0.550	0.0196	0.3481	0.0817	0.7108	0.0196	0.0420	69.2
DWFC088-54	50	0.0566	0.1967	0.669	0.0234	0.3448	0.0994	0.7109	0.0234	0.0501	124.9
DWFC150-18	33	0.0188	0.0939	0.320	0.0311	0.5752	0.0467	0.7052	0.0299	0.0344	56.6
DWFC150-30	33	0.0312	0.1543	0.525	0.0503	0.5710	0.0767	0.7050	0.0503	0.0639	105.3
DWFC150-43	33	0.0451	0.2188	0.745	0.0699	0.5654	0.1087	0.7048	0.0699	0.0888	146.3
DWFC150-54	50	0.0566	0.2686	0.914	0.0844	0.5606	0.1335	0.7050	0.0844	0.1071	267.2

- Notes:**
- Properties based on the AISI S100-2012. Safety factor NOT adjusted for AISI S220-11 for Ma determination
  - Design thickness used for determination of properties. Minimum delivered thickness must be no less than 95% of design thickness.
  - For deflection calculations, use effective Ixx.
  - Effective properties are given as the minimum value for positive or negative bending.

## Hat Furring Channel (DWFC) Allowable Ceiling Spans - L/240

Section	Fy (ksi)	Spans	4 psf Spacing (in) oc			Uniform Load 6 psf Spacing (in) oc			13 psf Spacing (in) oc		
			12	16	24	12	16	24	12	16	24
DWFC088-18	33	Single	5' 2"	4' 8"	4' 1"	4' 6"	4' 1"	3' 7"	3' 6"	3' 2"	2' 9"
		Multiple	6' 5"	5' 10"	5' 1"	5' 7"	5' 1"	4' 4"	4' 2"	3' 8"	2' 11"
DWFC088-30	33	Single	6' 1"	5' 7"	4' 10"	5' 4"	4' 10"	4' 3"	4' 1"	3' 9"	3' 3"
		Multiple	7' 7"	6' 11"	6' 0"	6' 7"	6' 0"	5' 3"	5' 1"	4' 8"	4' 1"
DWFC088-43	33	Single	6' 10"	6' 2"	5' 5"	5' 11"	5' 5"	4' 8"	4' 7"	4' 2"	3' 8"
		Multiple	8' 5"	7' 8"	6' 8"	7' 4"	6' 8"	5' 10"	5' 8"	5' 2"	4' 6"
DWFC088-54	50	Single	7' 3"	6' 7"	5' 9"	6' 4"	5' 9"	5' 0"	4' 10"	4' 5"	3' 10"
		Multiple	8' 11"	8' 1"	7' 1"	7' 10"	7' 1"	6' 2"	6' 0"	5' 6"	4' 9"
DWFC150-18	33	Single	7' 10"	7' 1"	6' 3"	6' 10"	6' 3"	5' 5"	5' 3"	4' 10"	4' 2"
		Multiple	9' 9"	8' 10"	7' 8"	8' 6"	7' 8"	6' 3"	5' 11"	5' 0"	3' 11"
DWFC150-18	33	Single	9' 4"	8' 6"	7' 5"	8' 2"	7' 5"	6' 6"	6' 3"	5' 9"	5' 0"
		Multiple	11' 7"	10' 6"	9' 2"	10' 1"	9' 2"	8' 0"	7' 9"	7' 1"	5' 11"
DWFC150-43	33	Single	10' 5"	9' 6"	8' 3"	9' 1"	8' 3"	7' 3"	7' 0"	6' 5"	5' 7"
		Multiple	12' 11"	11' 9"	10' 3"	11' 3"	10' 3"	8' 11"	8' 8"	7' 11"	6' 11"
DWFC150-54	50	Single	11' 1"	10' 1"	8' 10"	9' 8"	8' 10"	7' 8"	7' 6"	6' 10"	5' 11"
		Multiple	13' 9"	12' 6"	10' 11"	12' 0"	10' 11"	9' 6"	9' 3"	8' 5"	7' 4"

- Notes:**
- Allowable spans include 0.9 multiplier on safety factor, W, per AISI S220-11
  - Single spans taken as the minimum span based on moment, shear, web crippling or deflection
  - Multiple spans indicate two or more equal, continuous spans with span length measured support to support.
  - Multiple spans taken as the minimum span based on moment, shear, web crippling, deflection combined bending and shear or combined and web crippling
  - Web crippling values based on 1" bearing at end and interior supports.

## Hat Furring Channel (DWFC) Allowable Ceiling Spans - L/360

Section	Fy (ksi)	Spans	4 psf Spacing (in) oc			Uniform Load 6 psf Spacing (in) oc			13 psf Spacing (in) oc		
			12	16	24	12	16	24	12	16	24
DWFC088-18	33	Single	4' 6"	4' 1"	3' 7"	3' 11"	3' 7"	3' 1"	3' 0"	2' 9"	2' 5"
		Multiple	5' 7"	5' 1"	4' 5"	4' 10"	4' 5"	3' 10"	3' 9"	3' 5"	2' 11"
DWFC088-30	33	Single	5' 4"	4' 10"	4' 3"	4' 8"	4' 3"	3' 8"	3' 7"	3' 3"	2' 10"
		Multiple	6' 7"	6' 0"	5' 3"	5' 9"	5' 3"	4' 7"	4' 5"	4' 1"	3' 6"
DWFC088-43	33	Single	5' 11"	5' 5"	4' 8"	5' 2"	4' 8"	4' 1"	4' 0"	3' 8"	3' 2"
		Multiple	7' 4"	6' 8"	5' 10"	6' 5"	5' 10"	5' 1"	4' 11"	4' 6"	3' 11"
DWFC088-43	50	Single	6' 4"	5' 9"	5' 0"	5' 6"	5' 0"	4' 4"	4' 3"	3' 10"	3' 4"
		Multiple	7' 10"	7' 1"	6' 2"	6' 10"	6' 2"	5' 5"	5' 3"	4' 9"	4' 2"
DWFC150-18	33	Single	6' 10"	6' 3"	5' 5"	6' 0"	5' 5"	4' 9"	4' 7"	4' 2"	3' 8"
		Multiple	8' 6"	7' 8"	6' 9"	7' 5"	6' 9"	5' 10"	5' 9"	5' 0"	3' 11"
DWFC150-30	33	Single	8' 2"	7' 5"	6' 6"	7' 1"	6' 6"	5' 8"	5' 6"	5' 0"	4' 4"
		Multiple	10' 1"	9' 2"	8' 0"	8' 10"	8' 0"	7' 0"	6' 10"	6' 2"	5' 5"
DWFC150-43	33	Single	9' 1"	8' 3"	7' 3"	7' 11"	7' 3"	6' 4"	6' 2"	5' 7"	4' 10"
		Multiple	11' 3"	10' 3"	8' 11"	9' 10"	8' 11"	7' 10"	7' 7"	6' 11"	6' 0"
DWFC150-54	50	Single	9' 8"	8' 10"	7' 8"	8' 6"	7' 8"	6' 8"	6' 6"	5' 11"	5' 2"
		Multiple	12' 0"	10' 11"	9' 6"	10' 6"	9' 6"	8' 4"	8' 1"	7' 4"	6' 5"

- Notes:**
1. Allowable spans include 0.9 multiplier on safety factor, W, per AISI S220-11
  2. Single spans taken as the minimum span based on moment, shear, web crippling or deflection
  3. Multiple spans indicate two or more equal, continuous spans with span length measured support to support.
  4. Multiple spans taken as the minimum span based on moment, shear, web crippling, deflection combined bending and shear or combined and web crippling
  5. Web crippling values based on 1" bearing at end and interior supports.