

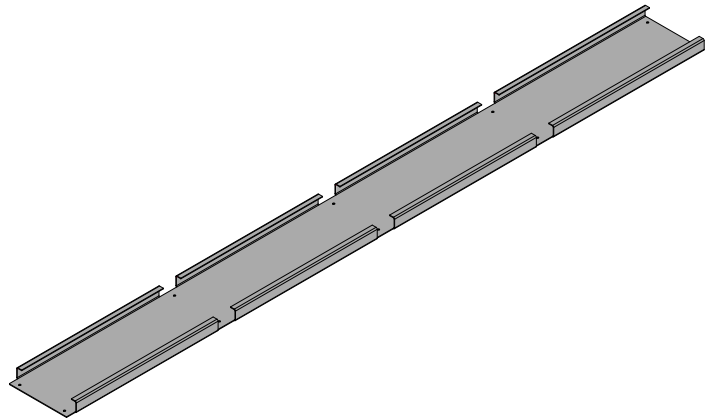
NS - Notched Stud Backing

Product Application

The NS notched stud backing is used in hospitals and schools as mechanical backing to provide support for equipment and cabinetry. Engineered section properties and allowable loads are provided.

Features and Benefits

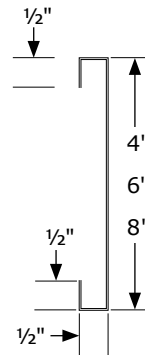
- Available in widths of 4", 6", and 8"
- Available in 12", 16", and 24" stud spacing
- Excellent for heavy load conditions
- Pre-cut notches for flange attachment
- Custom notching available upon request
- Pre-punched guide holes
- Eliminates field cutting
- Provides bracing and bridging support



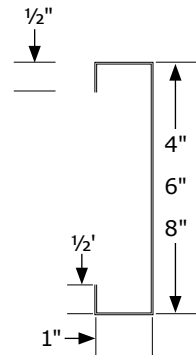
Material Composition

- Mill certified steel
- ASTM: A653/A653M
- 33 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating
- 43 mil
 - 33 ksi yield strength
 - 45 ksi tensile strength
 - G60 galvanized coating
- 54 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G60 galvanized coating
- 68 mil
 - 57 ksi yield strength
 - 65 ksi tensile strength
 - G90 galvanized coating

Notched Stud Backing With 1/2" Flange

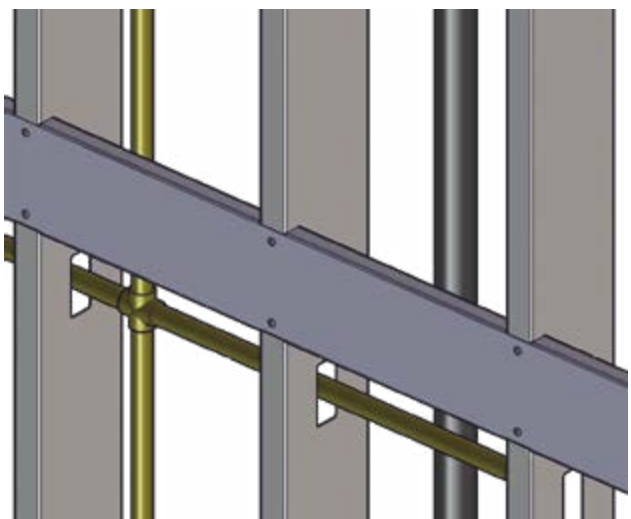
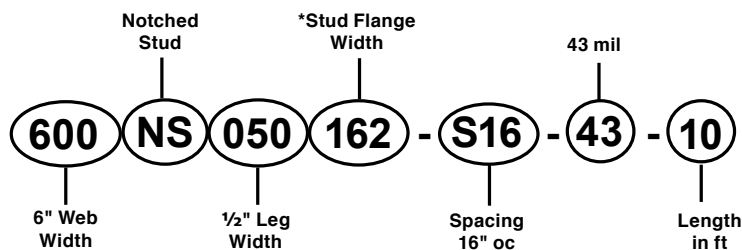


Notched Stud Backing With 1" Flange



Nomenclature Example

Notched Stud System complies with standard SSMA nomenclature using the letters "NS" as the product identification. Follow example when ordering Notched Stud System.



NS - Notched Stud Backing

Part No.	Depth (in)	Flange (in)	* Vertical Stud Flange	Properties			
				lxe (min) (in4)	Sxe (min) (in3)	lye (min) (in4)	Sye (min) (in3)
400NS050.*-S??-33	4	0.50	125/162/200	0.386	0.193	0.007	0.018
400NS050.*-S??-43	4	0.50	125/162/200	0.495	0.248	0.008	0.022
400NS050.*-S??-54	4	0.50	125/162/200	0.603	0.301	0.009	0.025
400NS050.*-S??-68	4	0.50	125/162/200	0.728	0.364	0.011	0.029
600NS050.*-S??-33	6	0.50	125/162/200	1.085	0.357	0.007	0.018
600NS050.*-S??-43	6	0.50	125/162/200	1.416	0.472	0.009	0.022
600NS050.*-S??-54	6	0.50	125/162/200	1.736	0.579	0.010	0.026
600NS050.*-S??-68	6	0.50	125/162/200	2.116	0.705	0.012	0.030
800NS050.*-S??-33	8	0.50	125/162/200	2.214	0.526	0.007	0.018
800NS050.*-S??-43	8	0.50	125/162/200	2.989	0.738	0.009	0.022
800NS050.*-S??-54	8	0.50	125/162/200	3.727	0.932	0.011	0.026
800NS050.*-S??-68	8	0.50	125/162/200	4.569	1.142	0.012	0.030
400NS100.*-S??-33	4	1.00	125/162/200	0.522	0.261	0.033	0.046
400NS100.*-S??-43	4	1.00	125/162/200	0.672	0.336	0.041	0.058
400NS100.*-S??-54	4	1.00	125/162/200	0.823	0.411	0.050	0.070
400NS100.*-S??-68	4	1.00	125/162/200	1.003	0.501	0.059	0.082
600NS100.*-S??-33	6	1.00	125/162/200	1.371	0.445	0.036	0.047
600NS100.*-S??-43	6	1.00	125/162/200	1.816	0.605	0.046	0.060
600NS100.*-S??-54	6	1.00	125/162/200	2.236	0.745	0.056	0.072
600NS100.*-S??-68	6	1.00	125/162/200	2.742	0.914	0.066	0.085
800NS100.*-S??-33 ¹	8	1.00	125/162/200	2.687	0.626	0.037	0.047
800NS100.*-S??-43	8	1.00	125/162/200	3.610	0.872	0.048	0.060
800NS100.*-S??-54	8	1.00	125/162/200	4.492	1.092	0.058	0.072
800NS100.*-S??-68	8	1.00	125/162/200	5.690	1.423	0.070	0.086

S?? Represents the vertical stud spacing. Allowable Section Properties - Per AISI Design Criteria

Allowable Loads

Part No.	Stud Properties			Vertical Pmax (lb) Spacing			# of Screws Required for Vertical Pmax Spacing			Horizontal Pmax (lb) Spacing			# of Screws Required for Horizontal Pmax Spacing		
	Mil	Gauge	Fy (ksi)	12"	16"	24"	12"	16"	24"	12"	16"	24"	12"	16"	24"
400NS050.*-S??-33	33	20	33	976	933	622	6	6	4	112	84	56	2	2	2
400NS050.*-S??-43	43	18	33	1740	1593	1062	7	7	5	144	108	72	2	2	2
400NS050.*-S??-54	54	16	50	3372	2934	1956	7	6	4	248	186	124	2	2	2
400NS050.*-S??-68	68	14	50	4716	3537	2358	10	8	5	284	213	142	2	2	2
600NS050.*-S??-33	33	20	33	638	638	638	4	4	4	112	84	56	2	2	2
600NS050.*-S??-43	43	18	33	1416	1416	1416	6	6	6	140	105	70	2	2	2
600NS050.*-S??-54	54	16	50	2823	2823	2706	6	6	6	248	186	124	2	2	2
600NS050.*-S??-68	68	14	50	5350	5268	3512	11	11	8	284	213	142	2	2	2
800NS050.*-S??-33	33	20	33	474	474	474	3	3	3	112	84	56	2	2	2
800NS050.*-S??-43	43	18	33	1051	1051	1051	3	4	4	144	108	72	2	2	2
800NS050.*-S??-54	54	16	50	2091	2091	2091	5	5	5	252	189	126	2	2	2
800NS050.*-S??-68	68	14	50	4221	4221	4221	9	9	9	288	216	144	2	2	2
400NS100.*-S??-33	33	20	33	976	976	860	6	6	5	288	216	144	4	3	2
400NS100.*-S??-43	43	18	33	1739	1739	1280	7	7	5	372	279	186	4	3	2
400NS100.*-S??-54	54	16	50	3372	3372	2398	7	7	5	680	510	340	4	3	2
400NS100.*-S??-68	54	16	50	4871	4533	3022	10	10	7	816	612	408	4	3	2
600NS100.*-S??-33	33	20	33	638	638	638	4	4	4	288	216	144	4	3	2
600NS100.*-S??-43	43	18	33	1416	1416	1416	6	6	6	376	282	188	4	3	2
600NS100.*-S??-54	54	16	50	2823	2823	2823	6	6	6	688	516	344	4	3	2
600NS100.*-S??-68	68	14	50	5350	5350	4554	11	11	10	828	621	414	4	3	2
800NS100.*-S??-33	33	20	33	474	474	474	3	3	3	292	219	146	4	3	2
800NS100.*-S??-43	43	18	33	1051	1051	1051	4	4	4	380	285	190	4	3	2
800NS100.*-S??-54	54	16	50	2091	2091	2091	4	4	4	692	519	346	4	3	2
800NS100.*-S??-68	54	16	50	4221	4221	4221	9	9	9	832	624	416	4	3	2

Table Notes

- Web height to thickness ratio exceeds 200. Web stiffeners are required at all support points and for concentrated loads.
- Maximum point load, Pmax, is determined based on the minimum of the shear capacity or the bending capacity of the blocking/Part No., or the number of screws with proper edge distance/spacing that may be installed. Load assumed to act at mid-span through centroid of Part No., based on a span of 24". For stud spacing of 16" oc, above tables may be used conservatively.
- Number of screws determined by dividing Pmax by capacity of #10 screw and rounding up. Screw manufacturer shall confirm that their screws meet the code-allowable capacity indicated in the table.
- Screw capacity based on stud material with thickness and yield strength equal to the blocking/Part No. Minimum screw spacing and edge distance shall not be less than 3 times the nominal screw diameter (per SSMA). For #10 screw, $3 \times d = 3 \times 0.190" = 0.57"$.
- The properties indicated in the table have been calculated using CFS version 5.0.2 (RSG Software Inc.).
- Tabulated values do not consider stud capacity. Studs designed by others.
- All calculations based on 2012 AISI.