

Technical Bulletin

FROM SPEIGHT, MARSHALL & FRANCIS, P.C.

Structural Engineers
February 1998
Bulletin No. V

On a regular basis, we plan to distribute these informational leaflets about crucial - but often ambiguous - structural engineering topics. With the knowledge our featured subjects, our goal is to help our clients improve their profitability while reducing their liability. We suggest distributing a copy of our technical bulletins throughout your office and keeping them on hand for quick reference.

Just What Can You Fit Through A Joist?

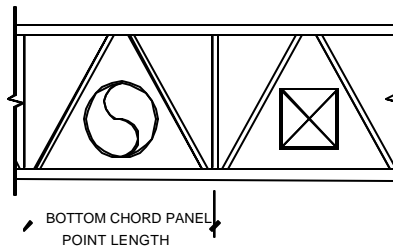
Introduction:

So often we are asked, "what size mechanical duct or other appurtenance can fit through open-webbed steel joists?" This "Technical Bulletin" includes a handy chart to assist our clients with this often asked question. The chart was featured in the February 1997 edition of *Modern Steel Construction*.

Important Notes Regarding the Following Chart:

1. This information is based upon standard SJI loading, spans and typical panel configuration. Joists with special loading requirements may have different dimensions and need to be reviewed individually. If a specific duct location and size is required, it must be explicitly noted on the contract documents.
2. No allowance has been made for fireproofing. The dimensions shown are maximum overall sizes capable of being passed through standard joists. If fireproofing is required the duct size must be reduced.
3. Due to the variability of joist girder configurations this table does not apply to joist girders.

JOIST SERIES	JOIST SIZES		MAXIMUM DUCT OPENING SIZES		
	JOIST DEPTH	BOTTOM CHORD PANEL LENGTH	DUCT SIZE		
			ROUND	SQUARE	RECTANGULAR
K-SERIES	8"	19"	5"	3-1/2"	3" x 6"
	10"	19"	6"	4-1/2"	3" x 8"
	12"	19"	7"	5"	3" x 8"
	14"	19"	8"	6"	5" x 9"
	16"	24"	9"	7-1/2"	6" x 10"
	18"	24"	10"	8"	6" x 10"
	20"	24"	10"	8"	6" x 11"
	22"	24"	10"	8-1/2"	7" x 11"
	24"	48"	16"	12"	10" x 18"
	26"	48"	16"	13"	12" x 18"
	28"	48"	18"	13"	12" x 18"
30"	48"	18"	15"	13" x 18"	
KCS-SERIES	10"	19"	5"	4"	3" x 6"
	12"	19"	6-1/2"	5"	3" x 8"
	14"	19"	7"	6"	5" x 7"
	16"	24"	9"	7"	6" x 9"
	18"	24"	10"	8"	6" x 10"
	20"	24"	10"	8"	6" x 11"
	22"	24"	10"	8-1/2"	7" x 11"
	24"	48"	16"	12"	10" x 18"
	26"	48"	16"	13"	12" x 18"
	28"	48"	18"	13"	12" x 18"
	30"	48"	18"	15"	13" x 18"
LH-SERIES	18"	48"	10"	8"	7" x 12"
	20"	48"	12"	9"	7" x 14"
	24"	48"	14"	11"	9" x 16"
	28"	56"	16"	13"	10" x 20"
	32"	64"	20"	16"	13" x 22"
	36"	72"	22"	18"	16" x 22"
	40"	80"	26"	21"	17" x 27"
	44"	88"	28"	23"	20" x 30"
48"	96"	30"	25"	20" x 34"	

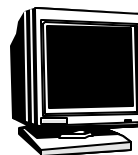


PARTIAL JOIST ELEVATION

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