

Cutting Edge Metal Solutions

**Perforating & Fabrication** 

## **Tolerances on Openings & Bars**

**Technical Resources—Perforated Metal Standards** 

*Tolerance on Openings -* The Tolerance on Openings is the allowable deviation for the stated hole size in a perforated sheet or plate. The opening tolerance is a measurement of the minimum size

only. It does not refer to the dimensions of the hole as it progresses through the thickness of the sheet.

Many factors can influence the size of the hole, including the type and thickness of the material, the punch and die clearance, and the use of laser, plasma or oxy-fuel cutting. During punching, the top surface of the material will "rollover," resulting in a finished hole that is slightly smaller than the punch that created it. The rollover amount usually increases with material thickness, but varies greatly with material type and die clearance.

The Tolerance on Openings in the chart is the standard tolerance for hole size that is applied to all orders, unless noted otherwise.

Contact your Hendrick sales representative for any special requirements you have. Dimensions and tolerances are in US inches.

Perforated	Tolerance on	Tolerance on
Opening	Openings	Avg. Bars
5.000	± 0.100	± 0.125
4.500	± 0.090	± 0.122
4.250	± 0.085	± 0.113
4.000	± 0.080	± 0.107
3.750	± 0.075	± 0.102
3.500	± 0.070	± 0.097
3.250	± 0.065	± 0.089
3.000	± 0.060	± 0.081
2.750	± 0.055	± 0.076
2.500	± 0.050	± 0.069
2.250	± 0.045	± 0.063
2.125	± 0.043	± 0.059
2.875	± 0.040	± 0.056
1 .875	± 0.038	± 0.054
1.750	± 0.035	± 0.051
1.625	± 0.033	± 0.047
1.625	± 0.030	± 0.043
1.375	± 0.028	± 0.040
1.250	± 0.025	± 0.037
1.186	± 0.024	± 0.035
1.125	± 0.023	± 0.034
1.063	± 0.021	± 0.032

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Perforated Opening	Tolerance on	Tolearance on
	Openings	Avg. Bars
1.000	± 0.020	± 0.030
0.938	± 0.019	± 0.029
0.875	± 0.018	± 0.028
0.813	± 0.016	± 0.026
0.750	± 0.015	± 0.024
0.688	± 0.014	± 0.022
0.625	± 0.013	± 0.021
0.563	± 0.012	± 0.019
0.531	± 0.012	± 0.018
0.500	± 0.011	± 0.017
0.469	± 0.011	± 0.017
0.438	± 0.011	± 0.016
0.375	± 0.010	± 0.014
0.313	± 0.010	± 0.013
0.265	± 0.009	± 0.011
0.250	± 0.009	± 0.011
0.219	± 0.009	± 0.011
0.188	± 0.008	± 0.009
0.156	± 0.007	± 0.009
0.127	± 0.006	± 0.008
0.125	± 0.006	± 0.007
0.109	± 0.006	± 0.007
0.094	± 0.005	± 0.006
0.078	± 0.005	± 0.006
0.066	± 0.004	± 0.005
0.055	± 0.004	± 0.005
0.045	± 0.003	± 0.004
0.039	± 0.003	± 0.004
0.032	± 0.002	± 0.003
0.027	± 0.002	± 0.003
0.023	± 0.002	± 0.003
0.020	± 0.002	± 0.002

Dimensions and tolerances are in US inches.