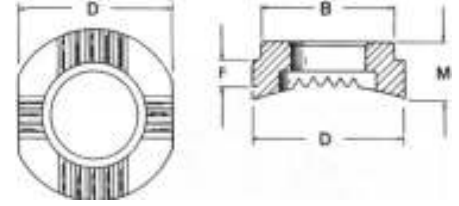


## Special Concave Ferrules for Welding to Curved Surfaces

For many applications, studs must be welded to the outside of curved surfaces of cylinders, tubes, pipes, or formed metal parts. In order to achieve good weld results when stud welding to a convex surface, the ferrule must fit both the stud diameter and the curve of the base material.



Below is a partial listing of ferrules that Nelson can provide for welding to curved surfaces.

### Standard Concave Ferrules

Nominal Stud Size	Inside Diameter A	Weld Surface Curve Diameter	Effective Height F	Grip Neck Diameter B	Major Diameter D	Ferrule Part Number
1/4	0.250	3/8	0.380	0.380	0.555	100102005
5/16	0.312	3/8	0.250	0.505	0.595	100102054
0.330	0.330	1/2	0.303	0.585	0.703	100102051
3/8	0.375	3/4	0.235	0.785	0.875	100102093
3/8	0.375	7/8	0.312	0.505	0.585	100102012
3/8	0.375	7/8	0.437	0.505	0.640	100102046
3/8	0.375	1-3/4	0.343	0.505	0.640	100102091
3/8	0.375	3	0.343	0.505	0.640	100102092
1/2	0.500	1-1/4	0.312	0.785	0.875	100102025
1/2	0.500	1-5/8	0.437	0.650	0.806	100102023
1/2	0.500	3	0.437	0.650	0.806	100102019
1/2	0.500	3	0.437	0.785	0.875	100102021
1/2	0.500	3	0.680	0.650	0.796	100102081
1/2	0.500	3-1/2	0.312	0.921	1.125	100102026
1/2	0.500	3-1/2	0.250	1.615	1.615	100102090
0.590	0.590	1-7/8	0.493	0.785	1.030	100102082
5/8	0.625	3/4	0.495	0.785	1.030	100102095
5/8	0.625	1	0.515	0.785	1.030	100102029
5/8	0.625	2	0.495	0.785	1.030	100102030
5/8	0.625	2-5/8	0.340	1.615	1.615	100102085
5/8	0.625	4	0.320	1.615	1.615	100102096
5/8	0.625	4	0.515	0.785	1.030	100102032
5/8	0.625	3-3/4	0.340	1.615	1.615	100102084
0.680	0.680	1	0.437	1.030	1.140	100105007
3/4	0.750	2-9/16	0.532	1.030	1.187	100102038
7/8	0.875	3-3/4	0.465	1.615	1.615	100102086
1	1.000	3	0.813	1.406	1.615	100102087

### Concave Ferrules for Reduced Base Studs\*

Nominal Stud Size	Inside Diameter A	Reduced Base Diameter	Weld Surface Curve Diameter	Effective Height F	Grip Neck Diameter B	Outer Diameter D	Ferrule Part Number
11/16	0.688	7/16	1-1/8	0.990	0.875	0.406	100102039
11/16	0.688	7/16	2	0.990	0.875	0.426	100102050
13/16	0.813	9/16	2	0.562	1.062	1.180	100102066
13/16	0.813	9/16	2-3/4	0.562	1.062	1.180	100102072

\* Reduced weld base diameters are often needed on pipe and port fittings.

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