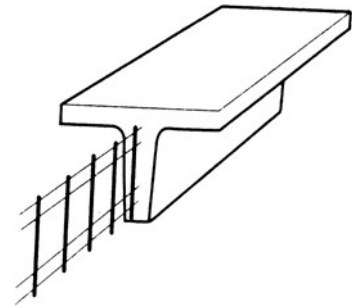


P12D Dur-O-Web® Shear Reinforcement

The Dayton Superior P12D Dur-O-Web is a prefabricated structural web reinforcement assembly that has been developed to replace conventional U-shaped and closed stirrups. The vertical steel wires provide reinforcement for the applied shear stresses. The double, horizontal side wires at the top and bottom of the assembly develop the required anchorage for the vertical wire reinforcement. The design of Dur-O-Web allows the spacing and size of both the vertical and horizontal wires to vary to meet your design requirements.



P12D Dur-O-Web Shear Reinforcement

Availability

Dayton Superior Dur-O-Web is shipped in bundles containing 500 ft. (50 pcs. of 10'-0" long units). Lengths other than 10'-0" can be supplied on special order. The standard finish is bright basic. Galvanized wire, hot dipped galvanized and epoxy coated finishes are also available on special order.

While Dur-O-Web is normally supplied with uniform spacing of vertical wires, variable spacing is available.

Benefits

- Ideal shear reinforcement for prestressed/precast concrete double tees, other precast elements having narrow webs, or where space is limited
- Wide variety of wire sizes and spacings
- Ready to use
- Reduces costs by eliminating the cutting and bending of standard rebars or mesh
- Easy to place
- Available in standard 10'-0" lengths
- Serves as a mesh support in double tee flanges
- The ability to vary wire diameters and spacing guarantees the most economical solution to your reinforcement requirements

Approvals

The use of Dayton Superior Dur-O-Web Shear Reinforcement to replace open and closed stirrups is allowed by American Concrete Institute (ACI-318) Standard Building Code Requirements for Concrete Structures, and Canadian Standards Association Standard CAN3A23.3 Design of Concrete Structures for Buildings.

Using the Selection Table

The P12D Dur-O-Web selection table, shown below, shows the diameter and area of the vertical shear reinforcement wires that are available. It also lists the minimum size horizontal anchor wire that ASTM standards require. In addition, the area of shear reinforcement per foot is shown for the various spacing of the vertical shear reinforcement selected.

Example:

A required shear steel area of 0.100 sq. in. per foot can be provided by using 1 gauge vertical wires spaced at 7-1/2" centers with 7 gauge longitudinal side wires. This example would provide 0.101 sq. in. of steel reinforcement per foot. Another solution would be the use of 5 gauge vertical wires spaced at 4" centers with 10 gauge longitudinal side wires. This combination would provide 0.102 sq. in. of reinforcement per foot.

P12D Dur-O-Web Selection Table

Wire Size	Wire Gauge	Wire Dia.	Steel Area (sq in.)	Weight lb / ft	Min. Side Wire Gauge	Area of Steel (sq. in.) per Lineal Foot at Indicated Main Shear Reinforcement Spacing											
						2"	3"	4"	5"	6"	7"	7-1/2"	8"	9"	10"	11"	12"
W-7.4	0	0.306"	0.074	0.251	6	0.444	0.296	0.222	0.178	0.148	0.127	0.118	0.111	0.099	0.089	0.081	0.074
W-6.3	1	0.283"	0.063	0.214	7	0.378	0.252	0.189	0.151	0.128	0.108	0.101	0.095	0.084	0.076	0.069	0.063
W-5.4	2	0.263"	0.054"	0.184	8	0.324	0.216	0.162	0.130	0.108	0.093	0.086	0.081	0.072	0.065	0.059	0.054
W-4.9	1/4"	0.250"	0.049"	0.167	9	0.294	0.196	0.147	0.118	0.098	0.084	0.078	0.074	0.065	0.059	0.053	0.049
W-4.7	3	0.244"	0.047"	0.158	9	0.282	0.188	0.141	0.113	0.094	0.081	0.075	0.071	0.063	0.056	0.051	0.047
W-4.0	4	0.225"	0.040"	0.135	9	0.240	0.160	0.120	0.096	0.080	0.069	0.064	0.060	0.053	0.048	0.044	0.040
W-3.4	5	0.207"	0.034"	0.114	9	0.202	0.136	0.102	0.082	0.068	0.058	0.054	0.051	0.045	0.041	0.037	0.034
W-2.9	6	0.192"	0.029"	0.098	9	0.174	0.116	0.087	0.070	0.058	0.050	0.046	0.044	0.039	0.035	0.032	0.029
W-2.5	7	0.177"	0.025"	0.084	9	0.150	0.100	0.075	0.060	0.050	0.043	0.040	0.038	0.033	0.030	0.027	0.025
W-2.1	8	0.162"	0.021"	0.070	9	0.126	0.084	0.062	0.050	0.042	0.036	0.034	0.032	0.028	0.025	0.023	0.021
W-1.7	9	0.148"	0.017"	0.059	9	0.102	0.068	0.051	0.041	0.034	0.029	0.027	0.026	0.023	0.020	0.019	0.017

P12D Dur-O-Web® Shear Reinforcement

Material Specifications

Dayton Superior Dur-O-Web is manufactured with smooth, round vertical steel wires and smooth, round horizontal side wires. All materials and products conform to the latest edition of one or more of the following ASTM specifications:

- A-82 Standard Specification for Steel Wire, Plain, for Concrete Reinforcement
- A-185 Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement

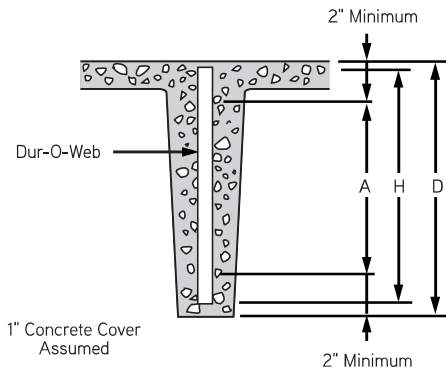
Weight Calculation

The sample calculation, below, shows how to calculate the approximate weight of steel used in different Dur-O-Web assemblies:

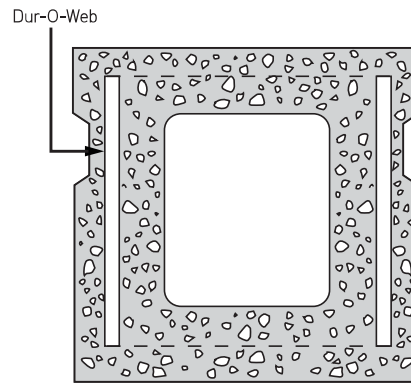
P12D Dur-O-Web

Vertical wires: 1 gauge at 6" centers
 Horizontal side wires: 4 pcs. of 7 gauge
 Height: 22" overall
 Length: 10'-0"

$$\begin{aligned} \text{Vertical wires} &= 22" \div 12" \text{ per ft.} \times 12" \text{ per ft.} \div 6" \text{ centers} \times .214 \text{ lb. per ft.} \times 10 \text{ ft.} = 7.87 \text{ lb.} \\ \text{Side Wires} &= 4 \text{ pcs.} \times 0.084 \text{ lb. per ft.} \times 10 \text{ ft.} = 3.36 \text{ lb.} \\ \text{Total weight per 10 ft. unit} &= 11.23 \text{ lb.} \end{aligned}$$

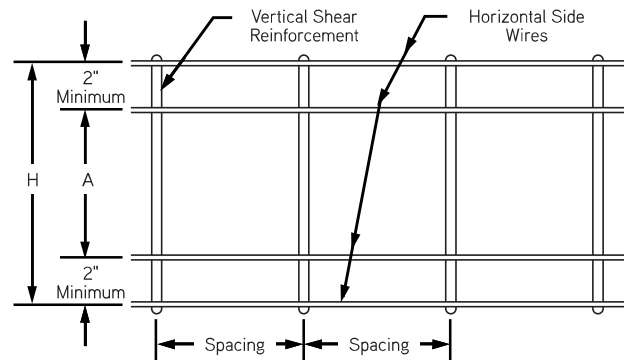


Double Tee



Bridge Beams

Depth of Concrete Member "D"	Dimension "A"	P12D Dur-O-Web Overall Height "H"
8'	2'	6'
10'	4'	8'
12'	6'	10'
14'	8'	12'
16'	10'	14'
18'	12'	16'
20'	14'	18'
22'	16'	20'
24'	18'	22'
32'	26'	30'



To Order:

Specify: (1) quantity, (2) overall height "H," (3) name, (4) gauge and spacing of vertical wires, (5) gauge of side wires, (6) overall length (7) finish.

Example:

275, 22" high, P12D Dur-O-Web, 1 gauge verticals at 6" centers, 7 gauge side wires x 10 ft. long, bright basic finish.

Miscellaneous Connection Inserts