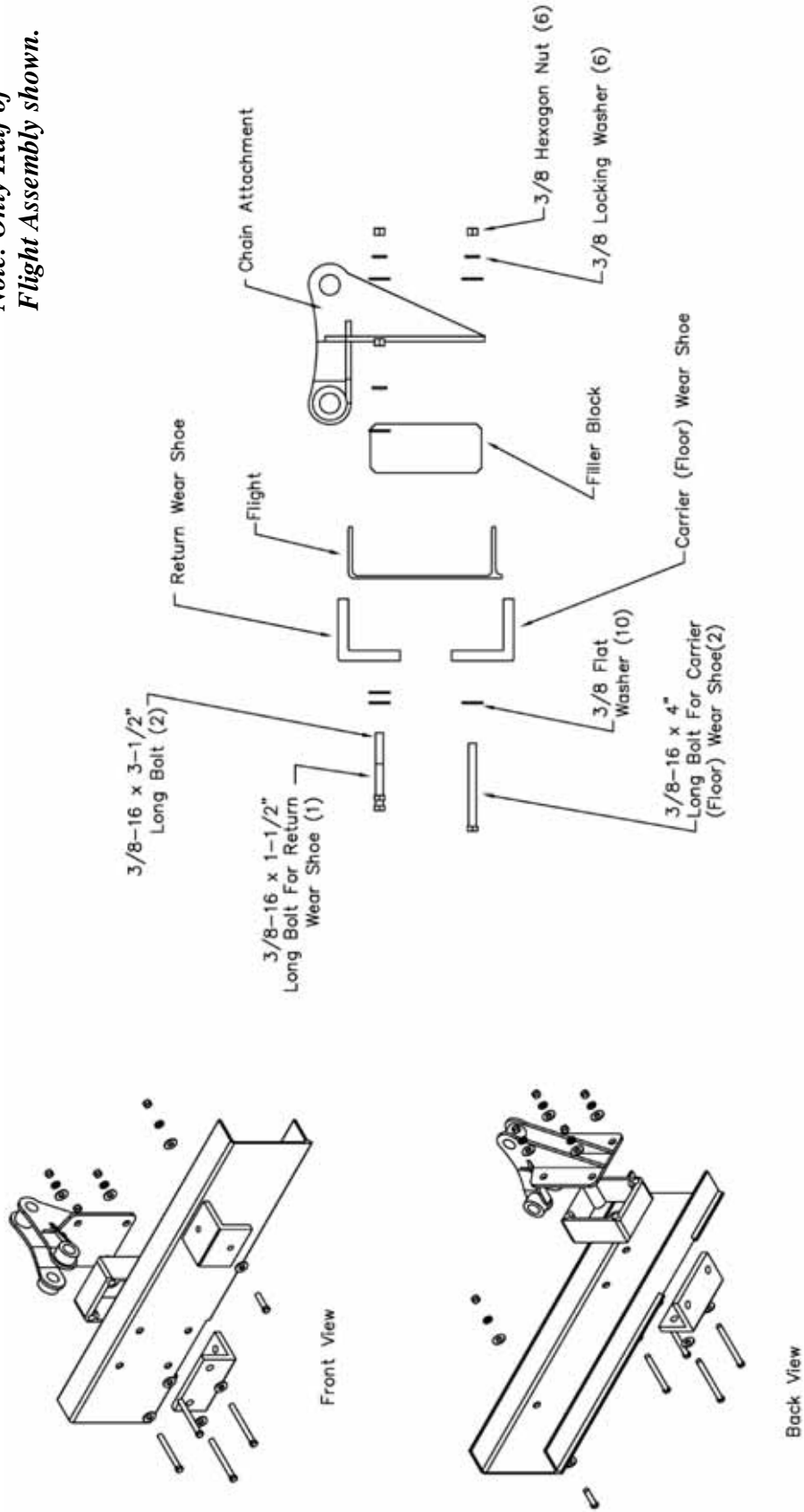
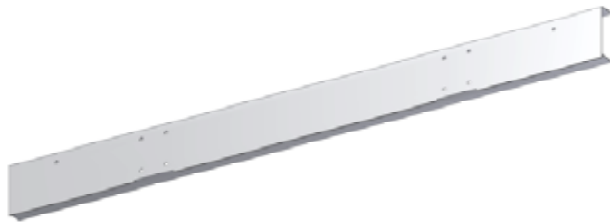


*Note: Only Half of Flight Assembly shown.*



**Typical Flight Assembly**

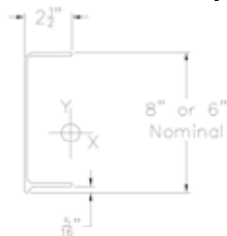
# Fiberglass Flights



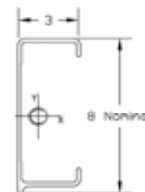
The majority of **flights** are a “C”-channel model made from an isophthalic polyester resin normally 8” or 6” nominal height. These are the light weight alternative to traditional wood flights. Allied-Locke Industries also offers a stiffer fiberglass flight

called a Maxi flight. These flights can be used for heavier flow applications or when the tank is very wide because they are less prone to bending. All polyester flights have a scraping lip for optimized tank scraping. Flights are factory notched and drilled per specification of the customer but can easily be modified in the field.

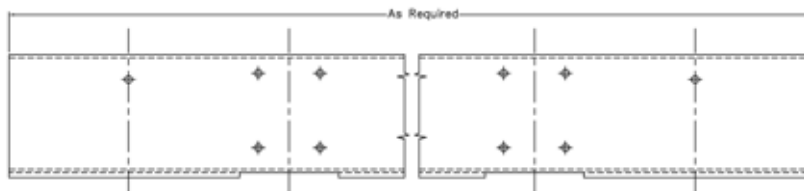
|   |                            |
|---|----------------------------|
| Barcol Hardness (Average)                                   | 40                         |
| Max Water Absorption  | 0.6 %                      |
| Longitudinal Tensile Strength (psi)                         | 47000                      |
| Transverse Tensile Strength (psi)                           | 7000                       |
| Longitudinal Flexural Strength (psi)                        | 40000                      |
| Transverse Flexural Strength (psi)                          | 10000                      |
| Shear Strength by Punch Tool (psi)                          | 14000                      |
| Min. Glass Content by Weight                                | 0.55                       |
| Maxi Flight Specific Gravity                                | 1.72 - 1.94                |
| Maxi Flight Density (Lbs./cubic inches)                     | .062 - .070                |
| Maxi Flight Min. Modulus of Elasticity (Y-Y axis) (psi)     | 4.5 x 10 <sup>6</sup> Min. |
| Flight Specific Gravity                                     | 1.61 - 1.75                |
| Flight Density (Lbs./cubic inches)                          | .058 - .062                |
| Flight Min. Modulus of Elasticity (Y-Y axis) (psi)          | 4.8 x 10 <sup>6</sup>      |
| Maxi Flight 8" Moment of Inertia x-x (inches <sup>4</sup> ) | 20.601                     |
| Flight 8" Moment of Inertia x-x (inches <sup>4</sup> )      | 15.589                     |
| Flight 6" Moment of Inertia x-x (inches <sup>4</sup> )      | 7.813                      |
| Maxi Flight 8" Moment of Inertia y-y (inches <sup>4</sup> ) | 2.79                       |
| Flight 8" Moment of Inertia y-y (inches <sup>4</sup> )      | 1.114                      |
| Flight 6" Moment of Inertia y-y (inches <sup>4</sup> )      | 1.02                       |



Typical Flight Profile



MAXI Flight Profile

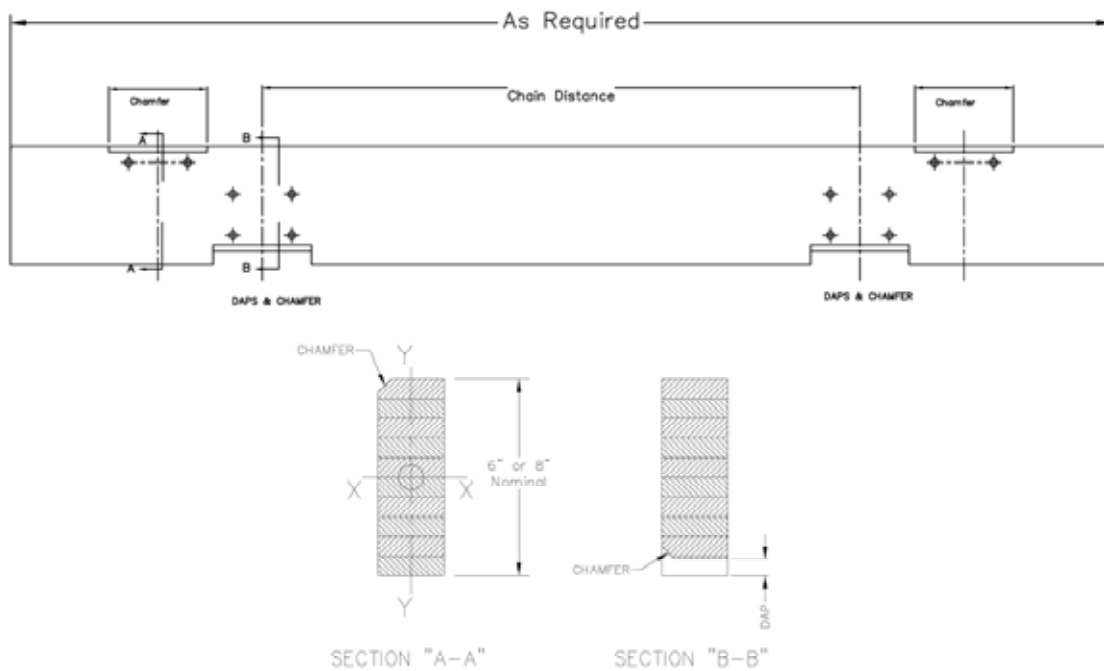


Typical Fiberglass Flight

## Laminated Wood Flights

Laminated wood flights come in a standard rectangular block form. These flights normally have a chamfer for wear shoes so that the inner radius of the shoe does not interfere with installation. The wood that is used for the flights is Douglas Fir and processed between 12-15% moisture. Laminated flights are normally used for heavy flow applications. These flights carry a lifetime warranty against defects in material and workmanship.

|   |                    |
|---|--------------------|
| Side Hardness (Lbs.)                            | 710                |
| Modulus of Rupture (psi)                        | $4.99 \times 10^3$ |
| Modulus of Elasticity (psi)                     | $1.76 \times 10^6$ |
| Specific Gravity                                | 0.48               |
| Density (Lbs./cubic inches)                     | 0.018495           |
| 8" Moment of Inertia x-x (inches <sup>4</sup> ) | 87.8906            |
| 6" Moment of Inertia x-x (inches <sup>4</sup> ) | 36                 |
| 8" Moment of Inertia y-y (inches <sup>4</sup> ) | 9.7656             |
| 6" Moment of Inertia y-y (inches <sup>4</sup> ) | 4                  |



Typical Wood Flight