

# WinterFlex® Product Specification

**A rubber snowplow blade system.  
References and case studies can be provided.**

## **Product Description:**

**The WinterFlex® Rubber Blade System is an engineered system that has a rubber blade with intermittent fabric layers for added strength and rigidity and an on-center hole punch allowing the rubber to easily be flipped and continue to be used. The system also has a carbide insert blade with 5/8” tall tungsten carbide inserts to prevent wear into the mounting holes and time for the blade to be flipped. The WinterFlex® Carbide Blade System also includes (2) Universal CurbRunner® PlowGuards that have a steel casting on the ends to protect the blade against premature wear, all mounting hardware (with thread locking fasteners), and installation instructions. All components are crated together in a palletized package.**

## **Product Specification Details:**

### **1. REFERENCES**

- 1.1 Manufacturer shall provide references for the system upon request validating wear life.

### **2. PACKAGING**

- 2.1 All blade system components are to be provided in a single box or crate comprising of:
  - a. WinterFlex® rubber sections
  - b. All blade sections manufactured per specifications.
  - c. (2) Universal CurbRunner™
  - d. Clamp bars for rubber mounting
  - e. (1) Grade 8 hardware kit including thread locking fasteners, flat washers, extended shoulder carriage bolts, and plow bolts.

- 2.2 Installation instructions included in package.
- 2.3 The blade system package is to be securely banded to a pallet providing adequate protection for common freight carrier handling, transportation, and receiving.
- 2.4 Packaging will provide adequate protection from the elements incurred during normal transportation and storage.

### 3. CARBIDE BLADE

- 3.1 The blade shall be high strength structural grade hot rolled flat steel.
- 3.2 Dimensions: 6" high x 3/4" thick x 3' or 4' length
- 3.3 Tolerance between hole spacing is +/- 1/16", non-accumulative, from center to center across full length of blade.
- 3.4 The groove for the carbide inserts shall be milled in the center of the blade edge.
- 3.5 Hole size and location of holes shall be per customer's requirements.
- 3.6 Blade to have bushings made of A-513 steel tubing (or equivalent) for positioning and supporting the rubber blade

### 4. TUNGSTEN CARBIDE INSERTS

- 4.1 The tungsten carbide insert shall comprise the following total dimensions:
  - a. Length: 1" nominal
  - b. Width: 0.36" min.
  - c. Height: 0.63" max.
  - d. Shape: 25° with nose radius of 0.06"
- 4.2 Tungsten carbide insert shall be of a grade containing approximately 89% tungsten and approximately 11% cobalt binder by weight.
- 4.3 Original compounding specific gravity equal to 14.35-14.6
- 4.4 The insert hardness shall be 87.5-88.8 Rockwell A scale
- 4.5 Transverse rupture strength of 351,000 PSI minimum.

## 5. BRAZING

- 5.1 Each blade shall contain an approximate 1” length of carbide inserts for each 1” length of blade.
- 5.2 The carbide inserts shall be placed in line within the center-milled groove.
- 5.3 The carbide inserts shall be brazed on all sides using sound brazing practice, having no evidence of voids, shims, or fillers providing approximately 70,000 PSI shear strength.

## 6. WinterFlex® RUBBER BLADE

- 6.1 Rubber blade to be made of Grade 1, #21 SBR with 2 layers of woven fabric
- 6.2 Dimensions: 8” high x 1-1/2” thick x 4’, 5’, or 6’ length
- 6.3 Holes provided to match WinterFlex® System Adapter Blade
- 6.4 Tensile strength: 3050 psi
- 6.5 Elongation: 580%
- 6.6 Durometer: 64 +/-5
- 6.7 Modulus: 1500
- 6.8 Specific Gravity: 1.14

## 7. WinterFlex® CLAMP BAR

- 7.1 WinterFlex® Clamp Bar shall be ASTM A36 Structural Grade hot rolled flat steel.
- 7.2 Tolerance between hole spacing is +/- 1/16”, non-accumulative, from center to center across full length of Clamp Bar to match main blade hole pattern.
- 7.3 Dimensions: 4” high x 5/8” thick x 4’, 5’, or 6’ length
- 7.4 Clamp Bar can be flipped to use Plow Bolts (c’sunk) or Carriage Bolts (square)

## 8. Universal CurbRunner™ GUARDS

- 8.1 Guards shall be ASTM A36 Structural Grade hot rolled flat steel.
- 8.2 Drilled and square punched with countersink to accept 5/8" Plow Bolt flush with front mounting blade surface.
- 8.3 Curb protection to be made of A-22 steel casting and welded on to guard
- 8.4 Holes are centered so guard can be mounted on left or right side of plow
- 8.5 Guards will be Class 7 Orange™ texture powder coated to provide corrosion resistance and safer handling.

## 9. MOUNTING HARDWARE

- 9.1 The mounting hardware will consist of high-quality thread locking components consisting of Grade 8 plow bolts, all metal lock nuts and flat washers. All items to be pre-counted and sealed for corrosion resistance.

## 10. FINISHED PRODUCT

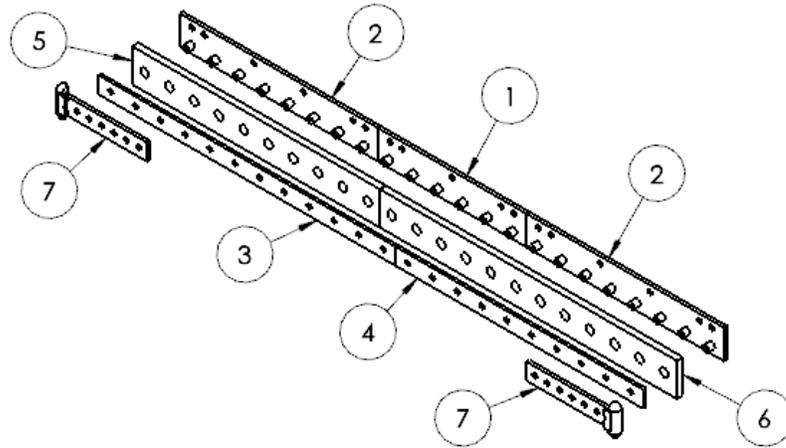
- 10.1 Finished blade will be Class 7 Orange™ texture powder coated to provide corrosion resistance and safer handling.
- 10.2 Finished blade shall comply with standard blade manufacturing tolerances.
- 10.3 Manufacturer's literature shall be furnished as required.

**Example of an 11 ft system**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	CB3031523WF	Blade	1
2	CB3041523WF	Blade	2
3	WF10006	Clamp Bar	1
4	WF10005	Clamp Bar	1
5	RB24EJJ3WF	Rubber	1
6	RB24GJJ3WF	Rubber	1
7	CR463U	Curb Guard	2
Not Shown	KT-WFA-12	Bolt Kit	1
Not Shown	KT-WFR-12	Bolt Kit	1

KT-WFA-12 includes:  
 (12) 5/8" x 3" Plow Bolts  
 (18) Lock Nuts  
 (18) Washers

KT-WFR-12 includes:  
 (18) 5/8" x 4" Plow Bolts  
 (6) 5/8" x 4-1/2" Plow Bolts  
 (24) Lock Nuts  
 (24) Washers



**Image above shows an overview of components.**