

# *Elk River Machine Company*

## **Benders**

### **Frequently Asked Questions:**

#### **What is the largest bender you construct?**

ERMC has been asked to construct single direction benders up to 30 feet in length. The customer furnishes the maximum wire diameter and minimum spacing. He also gives us the minimum bending radius he will require. The rule of thumb regarding radius is four times the diameter of the largest wire. Ultimately, however, the responsibility of proper bending radii rests with the user. We have built single direction benders to bend D21 on 2" spacing. Double benders may be constructed in lengths of 8', 10' and 12 feet. The unit becomes cumbersome after that length due to the height of the bending mandrel in the "full up" position.

#### **Can I use the bender outdoors?**

ERMC benders are built to be used outdoors. Obviously we recommend the units be operated indoors. To withstand severe cold ERMC offers tank heaters as optional equipment.

#### **How is the bender powered?**

ERMC will require the customer to furnish the voltage and frequency prior to construction. The unit is electrically powered with hydraulic operation. Single direction benders are available with gasoline powered generators for use in remote locations.

#### **What is the largest angle I can bend ?**

Double benders bend a maximum of 90 degrees. The unit is constructed to over-bend the mesh. As the mesh returns to the resting position the operator will determine the correct amount of over-bending to employ. In a similar manner the operators of single direction benders (90 Degree or 180 degree) through repetition, will become familiar with the behavior of the mesh sheets and will be able to produce consistent bends.

#### **So the quality of the bend is dependent on over-bend?**

Essentially that is correct, however ERMC offers bender upgrades complete with limit switches and hands-free operation. The operator determines the amount of over-bend required and sets the limit switches accordingly. Each sheet is bent with consistency and accuracy.

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### **Frequently Asked Questions (continued):**

#### **What size mesh can I bend?**

ERMC standard *double benders* will handle up to D 16.0 on 2" centers for the full length of the machine. Upgrades are available to expand the range of sizes through D32 (5/8") on 4" centers or D 21 (1/2") on 2" centers. ERMC standard single direction benders are designed and built to bend D12.0 (3/8") on 2" centers for the entire length of the machine. Upgrades are available for either 90 degree or 180 degree models, however, the geometry and construction of the bender will require review by the ERMC engineering department to confirm upgrade suitability. Larger radii anvils are available also by request.

#### **Can I bend rebar?**

ERMC benders are designed and built for cold drawn wire and WWR (welded wire reinforcing). The responsibility for conformance to any and all bending specifications rests solely with the purchaser. The double bender has been developed in response to the popularity of precast box culverts. Likewise, the single direction benders have been designed and built in response to the increased use of WWR in precast and cast-in-place construction. We expect the benders to be used in any application where the purchaser sees an advantage in using preformed mesh.