

Mini MRF Parts list/directions:

Frame:

19 feet of 1 ½ inch PVC Pipe*

cut : 4 - 28 inch pieces – sides
2 - 18 ½ inch pieces – ends
2 - 19 ¾ inch pieces - rods
6 - 6 inch pieces – legs*

6 – 1 ½ inch T joints

4 – 1 ½ inch Elbows

*Legs may be cut longer for a “free standing” MRF instead of table-top version—may need additional pipe

6 - felt rounds pads (glue on bottom of legs so MRF doesn't scratch table)

Driver/follow rods (19 ¾ inch length PVC pipe):

2 - 26 inch long ½/16 inch threaded steel rods

6 – ½-16 nuts

2 – ½-16 lock/set nuts (the kind with the set screw in the nut for the drive end so when you crank the drive rod it doesn't unscrew)

4 – 1/2 washers

4 - 1 ½ (1 3/8 outside dia.- ½ inch hole for rod) double sealed bearings

4 - pieces of wood cut to fit **into** the ends of the rods (at least ¾ inch deep)

8 – small flat headed screws at least 3/8th inch in length

Belt sandpaper- 3 inches wide

¾ inch socket and speed S-handle to power MRF

- Drill a 1 3/8 hole on the inside of two **side pieces** of PVC pipe -**10 ½** inches from end - for **drive rod** mechanism. (Must have room for material to fall off the drive end of the conveyor into box lid.)
- Drill a 1 3/8 hole on the inside of two **side pieces** of PVC pipe **3** inches from end - for **follow rod**
- Insert sealed bearings into 1 3/8 inch holes.
- Insert and glue a wooden round (with a ½ inch hole drilled in center) into each end of 19 ¾ inch long PVC pipe for rods (4 total) Glue into pipe.
- Cut belt sandpaper. Wrap and glue around one PVC rod to make the drive rod.
- From outside of PVC rods drill hole and place 2 flat- headed screws at each end into wood round to secure in place—for drive rod go through sandpaper.
- Threaded steel rods through PVC pipe with wooden rounds, through bearings in sides, place washer on outside, place two nuts on outside of sides. Set nuts go on both sides of driver rod.

Magnet:

1- bar magnet (we've taken the handle and wheels off a nail collector and used the magnet. (You can use any magnet you can scrounge and rig 2-3 inches over the conveyor line)

22 ½ inches long - ¼ inch steel rod. Bend into a U, slide magnet onto rod. Drill 2- ¼ inch holes into PVC side frame several inches from the middle T-joint **toward** the follow rod.

Belt:

Rubberized shelf liner or rug pad- cut 19 ¾ inches wide and long enough to wrap around drive/follow rods- approx 102 inches.

19 ¾ inches of 2 inch Sew-on Velcro (must be sew-on not stick-on)

- Sew Velcro on ends of rubberized material to form a circle.

Gaylord/ sort boxes:

10 6x6 cardboard boxes with top flaps cut off

20 ½ inch long nuts/bolts

80 inches of metal strapping cut into 8inch lengths

30 inches of wooden lathing strips cut into 3inch lengths (drilled holes ½ inch from each end.)



