1. All dimensions approximate, remember all subassemblies must match together.
2. Frame is based/built around a 8 1/2 in Trommel Barrel, what you come up with for barrel may change dimensions.
3. Frame is laid out with 3 layers of gear reduction in mind to get barrel speed down to 20-30 RPM.
Bill Fletcher's Mini Trommel Plans --- Page 2 Trommel Barrel

Notes:
1. Barrel is made from 2 sections of 8 1/2 x 6 in steel pipe, .125 in thick. Four ea 1/2 in by 1/2 in steel tubing tie the two sections together.
2. The 3/8 in expanded metal is rolled, inserted, and welded inside the barrel assembly.
3. I used a 84 tooth #35 steel sprocket with 8 1/2 center cut out, welded to end section of pipe. (can go up to 96 teeth and still fit inside frame)
4. Larger 96 tooth sprocket is best when using only 2 layers of gear reduction, mine (more complicated) had 3 and I used 84 tooth.
5. Expanded Metal is rolled up, slipped inside trommel barrel and tack welded in place.
Notes:

1. All sheetmetal is .040 steel, mig welded where necessary.
2. Hopper insert barrel is 8 in x 3 in x .125 steel.
3. Hopper will slide into trommel barrel 12 in, 1 in will remain cut for mounting spray bar.
4. These measurements not exact may have to vary slightly to fit your Trommel Barrel.
5. The rear three pieces of hopper may be bent out of a single piece if careful, best to mock up out of posterboard first.
6. The hopper should be built after the trommel barrel so as to match it closer. (trommel barrel pipes harder to find)
7. Hopper insert barrel can be cut from trommel pipe, slice out 1 in section and reweld to a smaller dia.
8. A piece of 3/16 in cotton rope may be riveted and epoxied under pipe set back 1/2 in to seal water backwash.
Notes:

1. All sprockets #35 size steel with 5/8 bore, loc-tite set screws.
2. The 96 tooth may be a tad too large, depending on how you build the frame, be careful here.
3. Cut 8 1/2 in circle out of the 96 tooth sprocket for hopper to set into, to feed material.
1. This Hopper should be built after the Trommel Frame and Trommel Barrel is in place and able to rotate. (minor adjustments may be needed to its shape)
2. Hopper is made from aluminum .025 to .035 thick. Another material may be stove pipe from Home Depot (galvanized steel).
3. Splice plates join the two Hopper Collectors together and need to have a compound curve bent into them to do so.
4. Sluice side attach plates and Sluice end may be taller than 2 1/2 inches if you want to drop the sluice lower in the frame.
5. This trommel is based on Keno’s super mini A51A sluice box.