

3.2.1 Cost Estimate for the PVVS

MATERIALS COST

| ITEM # | DESCRIPTION | TOTAL COST |
|-------------------------------------|----------------------------------|------------------|
| 1.0 Manufacture | | |
| 1.1 | Material Stock | \$21,045 |
| 1.2 | Die Manufacture | \$29,876 |
| 1.3 | Welding & Fixtures | \$6,210 |
| 1.4 | Forming | \$29,573 |
| 1.5 | Heat Treating (Stress Relieving) | \$8,280 |
| 2.0 Inspection and Test | | |
| 2.1 | CMM (Rent) | \$2,000 |
| 2.2 | Weld Inspection (x-ray) | \$7,195 |
| 2.3 | Magnetic Permeability | \$750 |
| 2.5 | Wall Thickness (Ultrasonic) | \$2,400 |
| 3.0 Preparation for Delivery | | |
| 3.1 | Metal Labels | \$200 |
| 3.2 | Skids and Crates | \$300 |
| 3.3 | Shipping | \$1,500 |
| 4.0 Miscellaneous | | |
| 4.1 | Computer Hardware Upgrades | \$2,956 |
| 4.2 | Travel (See Sub-sheet) | \$24,770 |
| Material Cost: | | \$137,055 |

LABOR COST

| ITEM # | DESCRIPTION | TOTAL COST |
|--|--------------------------------|------------------|
| 5.0 | Project Management | \$15,016 |
| 6.0 Engineering | | |
| 6.1 | Mechanical | \$42,864 |
| 6.2 | Measurement | \$8,588 |
| Labor Sub-Total: | | \$66,468 |
| 7.0 Subcontract (Nu Vacuum Systems) | | |
| 7.1 | Project Management/Engineering | \$25,980 |
| 7.2 | Direct Labor | \$36,097 |
| Labor Total: | | \$128,545 |
| MATERIALS AND LABOR TOTAL: | | \$265,600 |