



SAMPLE COST BREAK DOWN

REAR VIEW MIRROR

**PART ID NUMBER-RVMSA2CP1
PART NAME -MIRROR COVER**

| Part Information : | |
|---------------------------------|-------------------|
| Part Number : | RVMSA2CP1 |
| Part Description : | Mirror Cover |
| Annual Volume (#) : | 1,50,000 |
| Commodity : | Plastics |
| Process Name : | Injection Molding |
| Current Supplier Name : | - |
| Current Manufacturing Country : | INDIA |
| Delivery Country : | INDIA |
| BOM Qty (No's) | 1 |
| Part Complexity : | Low |
| Lot size (#) : | 12,500 |
| Supply Chain Model : | Buy |
| Packaging Type : | No Packing |
| HS Code : | N/A |
| Inco Terms : | EX-W |
| Payment Terms : | 60 Days |

Runner Volume Estimation

| | |
|---------------------------------|----------|
| Sprue Length (mm) | 165.00 |
| Sprue Dia (mm) | 4.50 |
| Sprue Volume (mm ³) | 2,624.21 |

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|----------------------------------|--------|
| Runner Length (mm) | 45.00 |
| Runner Dia (mm) | 3.00 |
| Runner Volume (mm ³) | 318.09 |

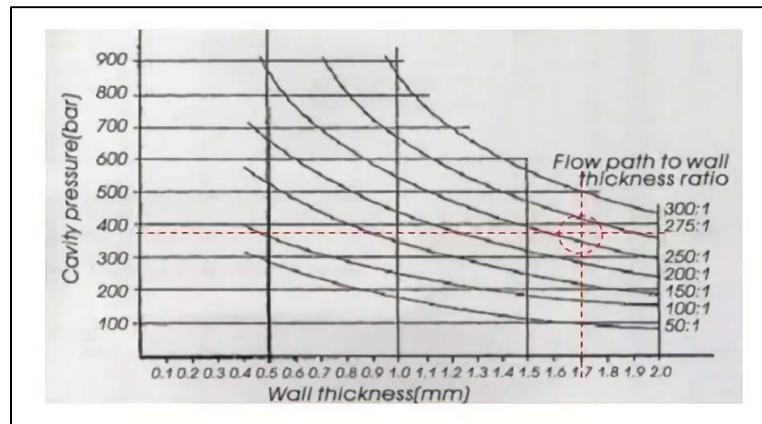
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| Gate Length (mm) | 20.00 |
| Avg Gate Dia (mm) | 2.50 |
| Number Of Gates | 2.00 |
| Gate Volume (mm ³) | 196.35 |

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| Total Runner Volume (mm ³) | 3,138.65 |
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| Material Density (kg/m ³) | 1,040.00 |
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|-------------------|------|
| Runner Weight (g) | 4.00 |
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| Injection Molding Tonnage recommendation | |
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| Number of cavities-Nos | 2 |
| Part projected area-mm ² | 12927 |
| Runner projected area-mm ² | 135 |
| Min wall thickness-mm | 1 |
| Max length of flow-mm | 178 |
| Flow path/wall thickness Ratio- | 178 |
| Cavity pressure theoretical-bar | 300 |
| Viscosity grade (Material Flowability)-1 - 1.9 | 1 |
| Cavity pressure actual-Kg/cm ² | 306 |
| Safety factor- | 1.20 |
| Shot projected area-mm ² | 25989 |
| Clamping tonnage-Ton | 95 |



| Injection Time | |
|------------------------|------|
| Injection Rate (kg/hr) | 130 |
| Shot Weight (g) | 154 |
| Injection Time (s) | 5.69 |

| Cooling Time | |
|---|------|
| Avg Wall Thickness (mm) | 1.50 |
| Co Efficient Of Thermal Conductivity (W/mC) | 0.35 |
| Specific Heat (J/gC) | 1.25 |
| Thermal Diffusivity (mm ² /s) | 0.30 |
| Melt Density (kg/mm ³) | 936 |
| Injection Temperature (C) | 235 |
| Ejection Temperature (C) | 120 |
| Mold Temperature (C) | 65 |
| Cooling Time (s) | 1.64 |

| Other Time Factors | |
|------------------------------|--------------|
| Pressure Holding Time | 5 |
| Slide / Lifter Mechanism (s) | 4 |
| Dry Cycle Time (s) | 3 |
| Ejection Time (s) | 1 |
| Insert Pick & Place Time | 5 |
| Total Cycle Time (s) | 25.33 |

| Material Information 1: | |
|------------------------------------|--------------------------|
| Category : | Plastic |
| Family : | PP |
| Description/Grade : | PP + 20%GF |
| Density (g/cc) : | 1.04 |
| Material: | PP GF20% |
| Material price (₹/Kg) : | ₹ 120.00 |
| Scrap price (₹/Kg) : | ₹ 30.00 |
| Part Envelope Length (mm) | 178.00 |
| Part Envelope Width (mm) | 100.00 |
| Part Envelope Height (mm) | 46.18 |
| Part Surface Area (mm^2) | 25,854.00 |
| Part Volume (mm^3): | 72,115.38 |
| Cavities | 2.00 |
| Runner & Gating: | Cold Runner, Cashew Edge |
| Finish Part Weight: gms | 75.00 |
| Runner & Sprue Weight: gms | - |
| Shot Weight: | 150.00 |
| Regrind: | No |
| Scrap weight per shot(g) : | - |
| Utilisation % | 100.00% |
| Scrap Recovery % | 90.00% |
| Gross Material cost Per Part (₹) : | ₹ 9.0000 |
| Scrap Rec Cost Per Part (₹) : | ₹ - |
| Net RM Cost Per Part: | ₹ 9.0000 |
| Total Material Cost | ₹ 9.0000 |

| Manufacturing Information 1: | |
|------------------------------|-----------------------------------|
| Process Type : | Injection Molding |
| Recommended Force : (Ton) | 95 Ton |
| Selected Tonnage (Ton) : | 110 Ton |
| Machine Name : | Generic Injection Molding Machine |
| M/c Automation : | Auto |
| No Of Cavities | 2.00 |

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|-------------------------------|--------|
| Cycle Time (sec) : | 25.33 |
| Setup Time (min/piece) : | 0.01 |
| Total tool loading time (min) | 120.00 |
| # of Direct Labors : | 1.00 |

| | | |
|--|---|---------------|
| # of Skilled Labors : | | - |
| # of QA Inspector : | | 1.00 |
| Direct Labor Rate /hr | | 102.00 |
| Skilled Labor Rate /hr | | 115.00 |
| QA Inspector Rate /hr: | | 115.00 |
| Sampling Rate (%) | | 1% |
| Inspection time (min) : | | 5.00 |
| Yield (Net Good Parts) (%) : | | 95% |
| Machine hour Rate (₹) : | | 120.00 |
| Machine Cost (₹) : | ₹ | 0.4221 |
| Setup Cost (₹) : | ₹ | 0.0355 |
| Labor Cost (₹) : | ₹ | 0.3588 |
| Inspection Cost (₹) : | ₹ | 0.0958 |
| Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ | 0.3924 |
| Net Process cost (₹) : | ₹ | 1.3046 |

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| Total Process Cost | ₹ | 1.3046 |
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| Over Heads | | |
|-------------------|---|--------|
| Material OH 5% | ₹ | 0.4593 |
| Machine OH 3% | ₹ | 0.0127 |
| Labor OH 2% | ₹ | 0.0072 |
| Profit 8% | ₹ | 0.8393 |

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|----------|---|---------------|
| Total OH | ₹ | 1.3184 |
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| Summary | | |
|-----------------|---|----------------|
| Material Cost | ₹ | 9.1860 |
| Process Cost | ₹ | 1.3046 |
| OH | ₹ | 1.3184 |
| Total Part Cost | ₹ | 11.8090 |

| Tool Information | | |
|-------------------------------------|--|-------------|
| Estimated Tool Size: (L*W*H) mm | | 400X388X580 |
| Tool Cost: Estimated | | 13 Lakh INR |
| No Of Shots | | 5,00,000 |
| Mold Utilisation For 5 Year Program | | 75% |

| Part Description | |
|------------------|-------|
| Length | 100 |
| Width | 178 |
| Height | 46.18 |
| No Of Cavities | 2 |
| Mold Base Length | 400 |
| Mold Base Width | 338 |

| Units Index | |
|-------------|-----|
| Dimensions | mm |
| Weight | kg |
| Currency | INR |

| Mold Material Estimate | | | | | |
|------------------------|-----|-----|--------|-----|--------|
| Line Item | L | W | H | Qty | Weight |
| Core Plate | 400 | 338 | 136.18 | 1 | 144.53 |
| Cavity Plate | 400 | 338 | 136.18 | 1 | 144.53 |
| Core Back Plate | 400 | 338 | 45 | 1 | 47.76 |
| Top Plate | 400 | 388 | 25 | 1 | 30.46 |
| Bottom Plate | 400 | 388 | 25 | 1 | 30.46 |
| Ejector Plate | 400 | 308 | 25 | 1 | 24.18 |
| Ejector Back Plate | 400 | 308 | 30 | 1 | 29.01 |
| Spacer Block | 400 | 80 | 180 | 2 | 90.43 |
| Core Insert | 320 | 298 | 96.18 | 1 | 72.00 |
| Cavity Insert | 320 | 298 | 96.18 | 1 | 72.00 |
| Lifter / Slide | 150 | 150 | 100 | 1 | 17.66 |
| Runner Plate | 400 | 388 | 25 | 1 | 30.46 |

| Mold RM Cost Estimate | | | | |
|-----------------------|----------|---------|----------|-------------------------|
| Line Item | Material | Cost/Kg | Weight | Cost |
| Mold Base | C45 | 350 | 629 | 2,20,150 |
| Electrodes | Copper | 1,200 | 25 | 30,000 |
| Cavity | H13 | 750 | 79 | 59,398 |
| Core | H13 | 750 | 79 | 59,398 |
| Sub Inserts | H13 | 750 | 19 | 14,572 |
| Standard Parts | | 1 | 1,50,000 | 1,50,000 |
| | | | | Total ₹ 5,33,518 |

| Mold Manufacturing Cost Estimate | | | | |
|----------------------------------|------|---------|--------|-------------------------|
| Line Item | MHR | Cost/Kg | Weight | Cost |
| Generic Machining | 400 | 24 | 24 | 19,200 |
| Core / Cavity Mach | 500 | 120 | 120 | 1,20,000 |
| Electrodes Machin | 500 | 24 | 24 | 24,000 |
| Slide / Lift Machini | 500 | 48 | | 24,000 |
| Base Machining | 500 | 8 | 8 | 8,000 |
| EDM | 400 | 80 | 80 | 64,000 |
| Wire Cut | 400 | 18 | 180 | 79,200 |
| Polishing | 400 | 36 | 36 | 28,800 |
| Soptting | 500 | 18 | 18 | 18,000 |
| Assembly | 400 | 48 | | 19,200 |
| Grain / Texture | | | | 80,000 |
| Hardening | 225 | 89 | | 20,005 |
| Trail | 5000 | 3 | | 15,000 |
| | | | | Total ₹ 5,19,405 |

| OH & Profit | | |
|--------------|-----|-------------------------|
| Line Item | % | Cost |
| OH | 10% | 1,05,292 |
| Profit | 10% | 1,05,292 |
| RM For Trial | 156 | 7,800 |
| | | Total ₹ 2,18,385 |

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|---------------------------------|-----------------|
| Estimated Mold Size (L X W X H) | 400 X 388 X 580 |
| Estimated Mold Cost | ₹ 12,71,308 |

**PART ID NUMBER-RVMSA1CP1
PART NAME -MIRROR ARM**

| Field Header | Field name | Field Value |
|---------------------------|---------------------------------|---|
| Part Information : | Part Number : | RVMSA1CP1 |
| | Part Description : | Mirror Arm |
| | Annual Volume (#) : | 1,50,000 |
| | Commodity : | Metal Forming |
| | Process Name : | Hot Forging +Machininh +Thread Rolling + Bending |
| | Current Supplier Name : | - |
| | Current Manufacturing Country : | INDIA |
| | Delivery Country : | INDIA |
| | BOM Qty (No's) | 1 |
| | Part Complexity : | Low |
| | Lot size (#) : | 12,500 |
| | Supply Chain Model : | Buy |
| | Packaging Type : | No Packing |
| | HS Code : | N/A |
| | Inco Terms : | EX-W |
| | Payment Terms : | 60 Days |

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|--------------------------------|-------------------------------|-----------|
| Material Information 1: | Category : | Ferrous |
| | Family : | Steel |
| | Description/Grade : | 1,080.00 |
| | Density (g/cc) : | 7.85 |
| | Material price (₹/Kg) : | ₹ 70.00 |
| | Scrap price (₹/Kg) : | ₹ 17.50 |
| | Part Envelope Length (mm) : | 160.00 |
| | Part Envelope Width (mm) : | 55.00 |
| | Part Envelope Height (mm) : | 18.00 |
| | Net weight (g) : | 112.00 |
| | Area (mm^2) : | 6,079.01 |
| | Volume (mm^3) : | 14,267.52 |
| | Rod Stock Diameter (mm) : | 9.85 |
| | Rod Stock Length (mm) | 6,000.00 |
| | Start & End Scrap Length (mm) | 5.00 |
| | Part Stock Length (mm) | 190.00 |
| | Part Allowance (mm) | 1.00 |
| | Part Stock Length (mm) | 191.00 |
| | Parts Per Rod (Pcs) | 31.00 |
| | Rod Weight (g) | 3,587.26 |
| | Scrap weight per part(g) : | 3.72 |
| | Net weight per part (g) : | 112.00 |
| | Gross weight per part (g) : | 115.72 |
| | Utilisation % | 97% |
| | Scrap Recovery % | 90% |
| | Gross Material cost (₹) : | ₹ 8.10 |
| | Scrap Rec Cost (₹) : | ₹ 0.06 |
| | Net Material cost (₹) : | ₹ 8.04 |

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| Total Material Cost | ₹ | 8.04 |
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| Manufacturing 1 : | Process Type : | Material Composition Analysis |
| | Machine Name : | XRF Gun |
| | M/c Automation : | Manual |
| | Cycle Time / Batch (min) : | 5.00 |
| | Cycle Time / Piece (sec) : | 0.02 |
| | Setup Time / Batch (min) : | 2.00 |

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| Cost Drivers : | Setup Time / Piece (min): | 0.00 |
| | # of Direct Labors : | 1.00 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | - |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | - |
| | Inspection time (min) : | - |
| | Yield (Net Good Parts) (%) : | 100% |
| | Machine hour Rate (₹) : | ₹ 400.00 |
| | Machine Cost (₹) : | ₹ 0.0027 |
| | Setup Cost (₹) : | ₹ 0.0013 |
| | Labor Cost (₹) : | ₹ 0.0007 |
| | Inspection Cost (₹) : | ₹ - |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ - |
| | Net Process cost (₹) : | ₹ 0.0047 |
| | Manufacturing 2 : | Process Type : Saw Cutting |
| Cost Drivers : | Machine Name : | Bandsaw |
| | M/c Automation : | Semi Auto |
| | Stock length (mm) : | 191.00 |
| | Stock width (mm) : | 9.85 |
| | Stock height (mm) : | 9.85 |
| | Cycle Time (sec) : | 6.35 |
| | Setup Time (min/piece) : | 0.07 |
| | Cutting Area (mm^2): | 76.20 |
| | Cutting Speed (mm^2/sec) | 12.00 |
| | Total tool loading time (min) | 15.00 |
| | Rod loading/Unloading time (min) | 808.00 |
| | # of Direct Labors : | 0.50 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | - |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | - |
| | Yield (Net Good Parts) (%) : | 100% |
| | Machine hour Rate (₹) : | ₹ 60.00 |
| | Machine Cost (₹) : | ₹ 0.11 |
| | Setup Cost (₹) : | ₹ 0.12 |
| | Labor Cost (₹) : | ₹ 0.09 |
| | Inspection Cost (₹) : | ₹ - |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ - |
| | Net Process cost (₹) : | ₹ 0.32 |
| | Manufacturing 3 : | Process Type : Stock Heating |
| | Machine Name : | Localised Induction Heating Apparatus |
| | M/c Automation : | Auto |
| | Cycle Time (sec) : | 83.74 |
| | Setup Time (min/piece) : | 0.01 |
| | Furnace Power (KW): | 220.00 |
| | Production rate (Kg/Hr) | 600.00 |
| | Part Gross Weight (g): | 115.72 |
| | Specific Heat of Material (J/Kg C) | 420.00 |
| | Initial Temperature (C.): | 23.00 |
| | Final Temperature (C.) | 850.00 |

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| Cost Drivers : | Furnace Efficiency | 0.80 |
| | Hardening Time Per Part (min) | 1.40 |
| | # of Direct Labors : | 0.50 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 100% |
| | Machine hour Rate (₹) : | ₹ 180.00 |
| | Machine Cost (₹) : | ₹ 4.19 |
| | Setup Cost (₹) : | ₹ 0.04 |
| | Labor Cost (₹) : | ₹ 1.19 |
| | Inspection Cost (₹) : | ₹ 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ - |
| | Net Process cost (₹) : | ₹ 5.43 |
| Manufacturing 4 : | Process Type : | Closed Die Hot Forging |
| Cost Drivers : | Recommended Force : (Ton) | 0.97 |
| | Selected Tonnage (T) : | 10 TON |
| | Machine Name : | |
| | M/c Automation : | Manual |
| | No of hits required (nos): | 2.00 |
| | Cycle Time (sec) : | 30.00 |
| | Stock Loading/Unloading time (min) | 0.33 |
| | Setup Time (min/piece) : | 0.01 |
| | Total tool loading time (min) | 120.00 |
| | Part Envelope Length (mm) : | 17.60 |
| | Part Envelope Width (mm) : | 17.60 |
| | Part Envelope Height (mm) : | 17.60 |
| | Initial height Of Stock (mm): | 30.00 |
| | strength co-efficient, K (Mpa): | 530.00 |
| | Strain hardening exponent,n | 0.26 |
| | forging shape factor | 6.00 |
| | Part Area (mm^2) | 2,854.54 |
| | Flash Area (mm^2) | 285.45 |
| | Strain | 0.41 |
| | Flow stress (Mpa): | 402.18 |
| | Force required (Kn): | 7,577.05 |
| | Theoretical Force : (Ton) | 0.77 |
| Cost Drivers : | # of Direct Labors : | 2.00 |
| Cost Drivers : | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 95% |
| | Machine hour Rate (₹) : | ₹ 150.00 |
| | Machine Cost (₹) : | ₹ 1.25 |
| | Setup Cost (₹) : | ₹ 0.06 |
| | Labor Cost (₹) : | ₹ 1.70 |
| | Inspection Cost (₹) : | ₹ 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ 0.46 |
| | Net Process cost (₹) : | ₹ 3.48 |

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| Manufacturing 5 : | Process Type : | CNC Machining |
| | Machine Name : | Generic 2 Axis Turn Center |
| | M/c Automation : | Semio Auto |
| | Cycle Time (sec) : | 65.85 |
| | Stock Load/Unload Time (sec) * X2 | 20.00 |
| | Setup Time (min/piece) : | 0.01 |
| | Operation : 1 | Turning (A) |
| | Workpiece Initial dia (mm): | 17.60 |
| | Workpiece Final dia (mm): | 9.85 |
| | Length of Cut (mm); | 17.60 |
| | Cutting Speed (m/min) | 45.00 |
| | Feed per revolution (mm/rev): | 0.50 |
| | Depth of cut (mm): | 0.50 |
| | Spindle RPM | 813.55 |
| | No. of passes (no.) | 7.50 |
| | Tool Travel Time (sec) | 0.03 |
| | Machining Time (min): | 0.39 |
| | Machining Time (sec): | 23.42 |
| | Operation : 2 | Threading (B) |
| | Workpiece Initial dia (mm): | 9.85 |
| | Workpiece Final dia (mm): | 8.50 |
| Cost Drivers : | Length of Cut (mm); | 35.00 |
| | Cutting Speed (m/min) | 20.00 |
| | Feed per revolution (mm/rev): | 0.35 |
| | Depth of cut (mm): | 0.50 |
| | Spindle RPM | 646.07 |
| | No. of passes (no.) | 2.00 |
| | Tool Travel Time (sec) | 0.03 |
| | Machining Time (min): | 0.37 |
| | Machining Time (sec): | 22.43 |
| | # of Direct Labors : | 1.00 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 98% |
| | Machine hour Rate (₹) : | ₹ 180.00 |
| Manufacturing 6 : | Machine Cost (₹) : | ₹ 3.29 |
| | Setup Cost (₹) : | ₹ 0.05 |
| | Labor Cost (₹) : | ₹ 1.87 |
| | Inspection Cost (₹) : | ₹ 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ 0.23 |
| | Net Process cost (₹) : | ₹ 5.45 |
| | Process Type : | Bending |
| | Machine Name : | 40 TON Hydraulic Press |
| | M/c Automation : | Semi Auto |
| | Ultimate Tensile Strength Of Material : (Mpa) | 440.00 |
| | Bending line length : (mm) | 100.00 |
| | Shoulder width : (mm) | 20.00 |
| | Bending coeffecient : | 1.33 |
| | Theoretical Force : (Ton) | 28.94 |
| | Cycle Time (sec) : | 8.00 |
| | Setup Time (min/piece) : | 0.00 |
| | # of Direct Labors : | 1.00 |

| | | |
|--------------------------|--|-------------------|
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 0.50 |
| Cost Drivers : | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 98% |
| | Machine hour Rate (₹) : | ₹ 120.00 |
| | Machine Cost (₹) : | ₹ 0.27 |
| | Setup Cost (₹) : | ₹ 0.02 |
| | Labor Cost (₹) : | ₹ 0.23 |
| | Inspection Cost (₹) : | ₹ 0.01 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ 0.13 |
| | Net Process cost (₹) : | ₹ 0.65 |
| Manufacturing 7 : | Process Type : | Age Hardening |
| | Machine Name : | Induction Furnace |
| | M/c Automation : | Auto |
| | Cycle Time (sec) : | 45.86 |
| | Setup Time (min/piece) : | 0.01 |
| | Set up %: | 0.01 |
| | Furnace Power (KW): | 220.00 |
| | Production rate (Kg/Hr) | 600.00 |
| | Part Weight (g): | 112.00 |
| | Specific Heat of Material (J/Kg C) | 420.00 |
| | Initial Temperature (C.): | 32.00 |
| | Final Temperature (C.) | 500.00 |
| | Furnace Efficiency | 0.80 |
| | Hardening Time Per Part (min) | 0.76 |
| Cost Drivers : | # of Direct Labors : | 0.50 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 100% |

| | | | |
|--------------------------|--|------------------------------|-------------|
| | Machine hour Rate (₹) : | ₹ | 150.00 |
| | Machine Cost (₹) : | ₹ | 1.91 |
| | Setup Cost (₹) : | ₹ | 0.03 |
| | Labor Cost (₹) : | ₹ | 0.65 |
| | Inspection Cost (₹) : | ₹ | 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ | - |
| | Net Process cost (₹) : | ₹ | 2.61 |
| Manufacturing 8 : | Process Type : | Phosphating - 7 Tank Process | |
| Cost Drivers : | Machine Name : | Dip Type | |
| | M/c Automation : | Semi Auto | |
| | Coating Thickness (micrometers): | 15.00 | |
| | Surface Area (mm^2): | 6,079.01 | |
| | Plating cost / sqin (₹): | ₹ | 0.06 |
| | Cost/Part (₹): | ₹ | 0.52 |
| Manufacturing 9 : | Process Type : | Powder Coating | |
| Cost Drivers : | Machine Name : | Dip Type | |
| | M/c Automation : | Semi Auto | |
| | Coating Thickness (micrometers): | 70.00 | |
| | Surface Area (mm^2): | 6,079.01 | |
| | Costing Coat / sqin (₹): | ₹ | 0.08 |
| | Cost/Part (₹): | ₹ | 0.79 |

| | | |
|--------------------|---|--------------|
| Total Process Cost | ₹ | 19.25 |
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|------------------|----------------|---|------|
| Overheads | Material OH 5% | ₹ | 0.40 |
| | Machine OH 3% | ₹ | 0.33 |
| | Labor OH 2% | ₹ | 0.11 |
| | Profit 8% | ₹ | 2.18 |

| | | |
|----------|---|-------------|
| Total OH | ₹ | 3.03 |
|----------|---|-------------|

| | | | |
|----------------|-----------------|---|--------------|
| Summary | Material Cost | ₹ | 8.04 |
| | Process Cost | ₹ | 19.25 |
| | OH | ₹ | 3.03 |
| | Total Part Cost | ₹ | 30.32 |

| Tooling Estimate Program Life | | | | | |
|-------------------------------|-----------------|----------------------|-----------------------------------|--------------------------------|--------------------------------------|
| Tool Type | Tool Cost (INR) | Tool Life (Pcs/Tool) | Program Volume (5 Years Estimate) | Tool Required For Program Life | Total Tooling For Program Life (INR) |
| Band Saw Blade | ₹ 2,500.00 | 30,000 | 7,50,000 | 25 | ₹ 62,500.00 |
| Forging Die | ₹ 1,50,000.00 | 50,000 | | 15 | ₹ 22,50,000.00 |
| Thread Roller - M10 | ₹ 50,000.00 | 1,00,000 | | 7 | ₹ 3,75,000.00 |
| Bending Die | ₹ 1,00,000.00 | 2,50,000 | | 3 | ₹ 3,00,000.00 |
| Total Tooling Investment | | | | ₹ | 29,87,500 |

**PART ID NUMBER-RVMSA1CP4
PART NAME -ADAPTER**

| Field Header | Field name | Field Value |
|---------------------------|---------------------------------|---------------------------|
| Part Information : | Part Number : | RVMSA1CP4 |
| | Part Description : | M10 Mirror Adapter |
| | Annual Volume (#) : | 1,50,000 |
| | Commodity : | Metal Forming + Machining |
| | Process Name : | Cold Forming + Turning |
| | Current Supplier Name : | - |
| | Current Manufacturing Country : | INDIA |
| | Delivery Country : | INDIA |
| | BOM Qty (No's) | 1 |
| | Part Complexity : | Low |
| | Lot size (#) : | 12,500 |
| | Supply Chain Model : | Buy |
| | Packaging Type : | No Packing |
| | HS Code : | N/A |
| | Inco Terms : | EX-W |
| | Payment Terms : | 60 Days |

| | | |
|--------------------------------|-------------------------------|-------------|
| Material Information 1: | Category : | Ferrous |
| | Family : | Steel |
| | Description/Grade : | 1,080.00 |
| | Density (g/cc) : | 7.85 |
| | Material price (₹/Kg) : | ₹ 70.00 |
| | Scrap price (₹/Kg) : | ₹ 17.50 |
| | Part Envelope Length (mm) | 71.15 |
| | Part Envelope Width (mm) | 13.92 |
| | Part Envelope Height (mm) | 13.92 |
| | Net weight (g) : | 56.00 |
| | Area (mm^2) : | 12,114.25 |
| | Volume (mm^3) : | 7,133.76 |
| | Wire Coil Diameter (mm) : | 13.65 |
| | Wire Coil Length (mm) | 2,00,000.00 |
| | Start & End Scrap Length (mm) | 20.00 |
| | Part Stock Length (mm) | 71.15 |
| | Part Allowance (mm) | 0.50 |
| | Part Stock Length (mm) | 71.65 |
| | Parts per Coil | 2,791.00 |
| | Coil Weight (g) | 2,29,633.17 |
| | Scrap weight per part(g) : | 26.28 |
| | Net weight per part (g) : | 56.00 |
| | Gross weight per part (g) : | 82.28 |
| | Utilisation % | 68% |
| | Scrap Recovery % | 90% |
| | Gross Material cost (₹) : | ₹ 5.76 |
| | Scrap Rec Cost (₹) : | ₹ 0.41 |
| | Net Material cost (₹) : | ₹ 5.35 |

| | | |
|---------------------|---|------|
| Total Material Cost | ₹ | 5.35 |
|---------------------|---|------|

| | | |
|--------------------------|----------------------------|-------------------------------|
| Manufacturing 1 : | Process Type : | Material Composition Analysis |
| | Machine Name : | XRF Gun |
| | M/c Automation : | Manual |
| | Cycle Time / Batch (min) : | 5.00 |
| | Cycle Time / Piece (sec) : | 0.02 |
| | Setup Time / Batch (min) : | 2.00 |
| | Setup Time / Piece (min): | 0.00 |

| | | |
|--------------------------|--|---------------------------------|
| Cost Drivers : | # of Direct Labors : | 1.00 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | - |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | - |
| | Inspection time (min) : | - |
| | Yield (Net Good Parts) (%) : | 100% |
| | Machine hour Rate (₹) : | ₹ 400.0000 |
| | Machine Cost (₹) : | ₹ 0.0027 |
| | Setup Cost (₹) : | ₹ 0.0013 |
| | Labor Cost (₹) : | ₹ 0.0007 |
| | Inspection Cost (₹) : | ₹ - |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ - |
| | Net Process cost (₹) : | ₹ 0.0047 |
| | Manufacturing 2 : | Process Type : Cold Heading |
| | Workpiece Stock Diameter (mm): | 13.65 |
| | Workpiece Stock Length (mm): | 71.65 |
| | No Of Hits Requires (No.): | 4.00 |
| Cost Drivers : | Machine Name : | Header + Wire Decoiling machine |
| | M/c Automation : | Semi Auto |
| | Cycle / (min) : | 120.00 |
| | Cycle Time (sec) : | 30.00 |
| | Setup Time (min/piece) : | 0.01 |
| | Total tool loading time (min) | 60.00 |
| | Coil loading/Unloading time (min) | 100.00 |
| | # of Direct Labors : | 0.25 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 98% |
| | Machine hour Rate (₹) : | ₹ 120.00 |
| | Machine Cost (₹) : | ₹ 1.00 |
| | Setup Cost (₹) : | ₹ 0.03 |
| | Labor Cost (₹) : | ₹ 0.21 |
| | Inspection Cost (₹) : | ₹ 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ 0.11 |
| | Net Process cost (₹) : | ₹ 1.38 |
| Manufacturing 3 : | Process Type : | Zone Annealing |
| | Machine Name : | Induction Furnace |
| | M/c Automation : | Auto |
| | Cycle Time (sec) : | 22.93 |
| | Setup Time (min/piece) : | 0.00 |
| | Set up %: | 0.01 |
| | Furnace Power (KW): | 220.00 |
| | Production rate (Kg/Hr) | 600.00 |
| | Part Weight (g): | 56.00 |
| | Specific Heat of Material (J/Kg C) | 420.00 |
| | Initial Temperature (C.): | 32.00 |
| | Final Temperature (C.) | 500.00 |
| | Furnace Efficiency | 0.80 |
| | Cost Drivers : | |

| | | |
|--|----------------|----------------------------|
| Hardening Time Per Part (min) | | 0.38 |
| # of Direct Labors : | | 0.50 |
| # of Skilled Labors : | | - |
| # of QA Inspector : | | 1.00 |
| Direct Labor Rate /hr | ₹ | 102.00 |
| Skilled Labor Rate /hr | ₹ | 115.00 |
| QA Inspector Rate /hr: | ₹ | 115.00 |
| Sampling Rate (%) | | 1% |
| Inspection time (min) : | | 2.00 |
| Yield (Net Good Parts) (%) : | | 100% |
| Machine hour Rate (₹) : | ₹ | 150.00 |
| Machine Cost (₹) : | ₹ | 0.96 |
| Setup Cost (₹) : | ₹ | 0.01 |
| Labor Cost (₹) : | ₹ | 0.32 |
| Inspection Cost (₹) : | ₹ | 0.02 |
| Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ | - |
| Net Process cost (₹) : | ₹ | 1.31 |
| Manufacturing 4 : | Process Type : | CNC Machining |
| Machine Name : | | Generic 2 Axis Turn Center |
| M/c Automation : | | Semio Auto |
| Cycle Time (sec) : | | 90.84 |
| Stock Load/Unload Time (sec) X2 | | 20.00 |
| Setup Time (min/piece) : | | 0.01 |
| Diameter of Hole (mm): | | 8.50 |
| Depth Of Hole (mm): | | 30.00 |
| Cutting Speed (m/min): | | 35.00 |
| Feed per revolution (mm/rev) | | 0.20 |
| Spindle RPM: | | 815.87 |
| Tool Travel Time (sec) | | 0.03 |
| Machining Time (min): | | 0.24 |
| Machining Time (sec): | | 14.13 |
| Operation : 3 | | Tapping (A1) |
| TAP Size: M10 | | 10.00 |
| Depth Of Hole (mm): | | 30.00 |
| Cutting Speed (m/min): | | 25.00 |
| Feed per revolution (mm/rev) | | 0.20 |
| Spindle RPM: | | 582.76 |
| Tool Travel Time (sec) | | 0.03 |
| Machining Time (min): | | 0.32 |
| Machining Time (sec): | | 18.99 |
| Operation : 1 | | Turning (A) |
| Workpiece Initial dia (mm): | | 13.65 |
| Workpiece Final dia (mm): | | 10.00 |
| Length of Cut (mm); | | 14.00 |
| Cutting Speed (m/min) | | 35.00 |
| Feed per revolution (mm/rev): | | 0.50 |
| Depth of cut (mm): | | 0.50 |
| Spindle RPM | | 815.87 |
| No. of passes (no.) | | 7.00 |
| Tool Travel Time (sec) | | 0.03 |
| Machining Time (min): | | 0.30 |
| Machining Time (sec): | | 17.86 |
| Operation : 1 | | Grooving (A) |
| Workpiece Initial dia (mm): | | 13.65 |
| Workpiece Final dia (mm): | | 13.15 |
| Length of Cut (mm); | | 1.00 |
| Cutting Speed (m/min) | | 35.00 |

| | | |
|----------------|-------------------------------|---------------|
| | Feed per revolution (mm/rev): | 0.10 |
| | Depth of cut (mm): | 0.50 |
| | Spindle RPM | 815.87 |
| | No. of passes (no.) | 1.00 |
| | Tool Travel Time (sec) | - |
| | Machining Time (min): | 0.01 |
| | Machining Time (sec): | 0.81 |
| | Operation : 2 | Threading (B) |
| Cost Drivers : | Workpiece Initial dia (mm): | 10.00 |
| | Workpiece Final dia (mm): | 8.50 |
| | Length of Cut (mm): | 13.70 |
| | Cutting Speed (m/min) | 20.00 |
| | Feed per revolution (mm/rev): | 0.25 |
| | Depth of cut (mm): | 0.59 |
| | Spindle RPM | 636.38 |
| | No. of passes (no.) | 3.00 |
| | Tool Travel Time (sec) | 0.03 |
| | Machining Time (min): | 0.32 |
| | Machining Time (sec): | 19.05 |
| | # of Direct Labors : | 1.00 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 2.00 |
| | Yield (Net Good Parts) (%) : | 98% |
| | Machine hour Rate (₹) : | ₹ 180.00 |
| | Machine Cost (₹) : | ₹ 4.54 |

| | | | |
|--------------------------|--|-----------------------|-------------|
| | Setup Cost (₹) : | ₹ | 0.05 |
| | Labor Cost (₹) : | ₹ | 2.57 |
| | Inspection Cost (₹) : | ₹ | 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ | 0.23 |
| | Net Process cost (₹) : | ₹ | 7.41 |
| Manufacturing 5 : | Process Type : | Age Hardening | |
| Cost Drivers : | Machine Name : | Induction Furnace | |
| | M/c Automation : | Auto | |
| | Cycle Time (sec) : | 66.80 | |
| | Setup Time (min/piece) : | 0.01 | |
| | Set up %: | 0.01 | |
| | Furnace Power (KW): | 150.00 | |
| | Production rate (Kg/Hr) | 250.00 | |
| | Part Weight (g): | 56.00 | |
| | Specific Heat of Material (J/Kg C) | 420.00 | |
| | Initial Temperature (C.): | 32.00 | |
| | Final Temperature (C.) | 600.00 | |
| | Furnace Efficiency | 0.80 | |
| | Hardening Time Per Part (min) | 1.11 | |
| | # of Direct Labors : | 0.50 | |
| | # of Skilled Labors : | - | |
| | # of QA Inspector : | 1.00 | |
| | Direct Labor Rate /hr | ₹ | 102.00 |
| | Skilled Labor Rate /hr | ₹ | 115.00 |
| | QA Inspector Rate /hr: | ₹ | 115.00 |
| Cost Drivers : | Sampling Rate (%) | 1% | |
| | Inspection time (min) : | 2.00 | |
| | Yield (Net Good Parts) (%) : | 100% | |
| | Machine hour Rate (₹) : | ₹ | 150.00 |
| | Machine Cost (₹) : | ₹ | 2.78 |
| | Setup Cost (₹) : | ₹ | 0.04 |
| | Labor Cost (₹) : | ₹ | 0.95 |
| | Inspection Cost (₹) : | ₹ | 0.02 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) | ₹ | - |
| | Net Process cost (₹) : | ₹ | 3.79 |
| Manufacturing 6 : | Process Type : | Plating - Black Oxide | |
| Cost Drivers : | Machine Name : | Dip Type | |
| | M/c Automation : | Semi Auto | |
| | Coating Thickness (micrometers): | 15.00 | |
| | Surface Area (mm^2): | 12,114.25 | |
| | Plating cost / sqin (₹): | ₹ | 0.08 |
| | Cost/Part (₹): | ₹ | 1.56 |

| | | |
|--------------------|---|--------------|
| Total Process Cost | ₹ | 15.45 |
|--------------------|---|--------------|

| | | | |
|------------------|----------------|---|------|
| Overheads | Material OH 5% | ₹ | 0.27 |
| | Machine OH 3% | ₹ | 0.28 |
| | Labor OH 2% | ₹ | 0.08 |
| | Profit 8% | ₹ | 1.66 |

| | | |
|----------|---|-------------|
| Total OH | ₹ | 2.29 |
|----------|---|-------------|

| | | | |
|----------------|-----------------|---|--------------|
| Summary | Material Cost | ₹ | 5.35 |
| | Process Cost | ₹ | 15.45 |
| | OH | ₹ | 2.29 |
| | Total Part Cost | ₹ | 23.09 |

| Tooling Estimate | | | | | |
|---------------------------------------|-----------------|----------------------|-----------------------------------|--------------------------------|--------------------------------------|
| Tool Type | Tool Cost (INR) | Tool Life (Pcs/Tool) | Program Volume (5 Years Estimate) | Tool Required For Program Life | Total Tooling For Program Life (INR) |
| Heading Die | ₹ 1,00,000.00 | 2,50,000 | 7,50,000 | 3 | ₹ 3,00,000.00 |
| Drill Bits | ₹ 2,000.00 | 12,500 | | 60 | ₹ 1,20,000.00 |
| Single Point Turning Tool | ₹ 2,000.00 | 12,500 | | 60 | ₹ 1,20,000.00 |
| Threading Tool | ₹ 2,500.00 | 15,000 | | 50 | ₹ 1,25,000.00 |
| CNC Turning Center - Programming Cost | | | | | ₹ 5,000.00 |
| Total Tooling Investment | | | | ₹ | 6,70,000 |

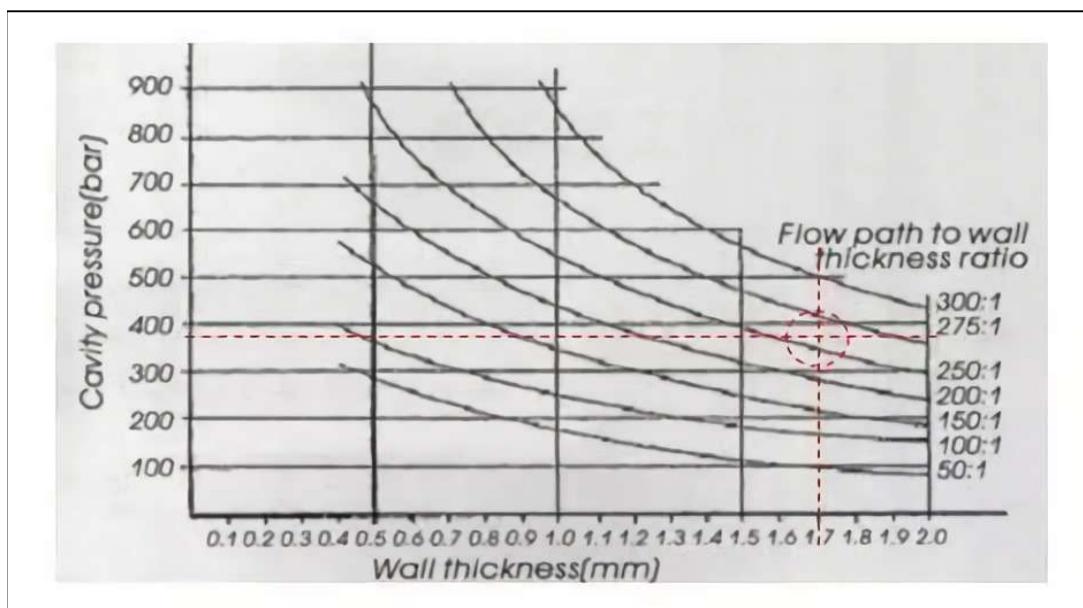
**PART ID NUMBER-RVMSA1CP2
PART NAME -RUBBER BOOT**

| Part Information : | |
|---------------------------------|---------------------|
| Part Number : | RVMSA1CP2 |
| Part Description : | Rubber Boot |
| Annual Volume (#) : | 1,50,000 |
| Commodity : | Rubber |
| Process Name : | Compression Molding |
| Current Supplier Name : | - |
| Current Manufacturing Country : | INDIA |
| Delivery Country : | INDIA |
| BOM Qty (No's) | 1 |
| Part Complexity : | Low |
| Lot size (#) : | 12,500 |
| Supply Chain Model : | Buy |
| Packaging Type : | No Packing |
| HS Code : | N/A |
| Inco Terms : | EX-W |
| Payment Terms : | 60 Days |

| Material Information 1: | | |
|------------------------------------|----------------|---------------|
| Category : | Polymer | |
| Family : | Rubber | |
| Description/Grade : | EPDM | |
| Density (g/cc) : | | 0.86 |
| Material: | EPDM Shore 40D | |
| Material price (₹/Kg) : | ₹ | 226.00 |
| Scrap price (₹/Kg) : | ₹ | 56.50 |
| Part Envelope Length (mm) | | 40.22 |
| Part Envelope Width (mm) | | 39.18 |
| Part Envelope Height (mm) | | 39.18 |
| Part Surface Area (mm^2) | - | |
| Part Volume (mm3): | | 18,604.65 |
| Cavities | | 8.00 |
| Runner & Gating: | - | |
| Finish Part Weight: gms | | 16.00 |
| Runner, Sprue, Flash Weight: gms | | 2.56 |
| Shot Weight: | | 130.56 |
| Regrind: | No | |
| Scrap weight per shot(g) : | | 0.32 |
| Utilisation % | | 98.04% |
| Scrap Recovery % | | 90.00% |
| Gross Material cost Per Part (₹) : | ₹ | 3.6883 |
| Scrap Rec Cost Per Part (₹) : | ₹ | 0.0163 |
| Net RM Cost Per Part: | ₹ | 3.6720 |

| | | |
|---------------------|---|---------------|
| Total Material Cost | ₹ | 3.6720 |
|---------------------|---|---------------|

| Injection Molding Tonnage recommendation | | |
|--|--------------------|-----------|
| Number of cavities | Nos | 8 |
| Part projected area | mm ² | 1194.5906 |
| Runner projected area | mm ² | 0 |
| Min wall thickness | mm | 3.43 |
| Max length of flow | mm | 40.22 |
| Flow path/wall thickness Ratio | | 12 |
| Cavity pressure theoretical | bar | 90 |
| Viscosity grade (Material Flowability) | 1 - 1.9 | 1 |
| Cavity pressure actual | Kg/cm ² | 91.8 |
| Safety factor | | 1.20 |
| Shot projected area | mm ² | 9556.7249 |
| Clamping tonnage | Ton | 11 |



| Cycle Time (s) | |
|-----------------------------|--------------|
| Mold Cleaning Time | 10 |
| Charge Loading Time | 16 |
| Stroke Actuation Time | 5 |
| Pressure Holding Time | 5 |
| Part Removing Time | 5 |
| Total Cycle Time (s) | 41.00 |

| Manufacturing Information 1: | | |
|--|-------------------------------------|---------------|
| Process Type : | Compression Molding | |
| Recommended Force : (Ton) | 11 Ton | |
| Selected Tonnage (Ton) : | 30 Ton | |
| Machine Name : | Generic Compression Molding Machine | |
| M/c Automation : | Auto | |
| No Of Cavities | 8.00 | |
| Cycle Time (sec) : | 41.00 | |
| Setup Time (min/piece) : | 0.01 | |
| Total tool loading time (min) | 120.00 | |
| # of Direct Labors : | 1.00 | |
| # of Skilled Labors : | - | |
| # of QA Inspector : | 1.00 | |
| Direct Labor Rate /hr | 102.00 | |
| Skilled Labor Rate /hr | 115.00 | |
| QA Inspector Rate /hr: | 115.00 | |
| Sampling Rate (%) | 1% | |
| Inspection time (min) : | 5.00 | |
| Yield (Net Good Parts) (%) : | 95% | |
| Machine hour Rate (₹) : | 100.00 | |
| Machine Cost (₹) : | ₹ | 0.1424 |
| Setup Cost (₹) : | ₹ | 0.0323 |
| Labor Cost (₹) : | ₹ | 0.1452 |
| Inspection Cost (₹) : | ₹ | 0.0958 |
| Yield Cost (Rejected Parts Scrap Rate) | ₹ | 0.1592 |
| Net Process cost (₹) : | ₹ | 0.5749 |

| | | |
|---------------------|---|---------------|
| Total Material Cost | ₹ | 0.5749 |
|---------------------|---|---------------|

| Over Heads | | |
|----------------|---|--------|
| Material OH 5% | ₹ | 0.1836 |
| Machine OH 3% | ₹ | 0.0043 |
| Labor OH 2% | ₹ | 0.0029 |
| Profit 8% | ₹ | 0.3398 |

| | | |
|----------|---|---------------|
| Total OH | ₹ | 0.5305 |
|----------|---|---------------|

| Summary | | |
|-----------------|---|---------------|
| Material Cost | ₹ | 3.6720 |
| Process Cost | ₹ | 0.5749 |
| OH | ₹ | 0.5305 |
| Total Part Cost | ₹ | 4.7775 |

| Tool Information | | |
|-------------------------------------|--------------|----------|
| Estimated Tool Size: (L*W*H) mm | 400*300*300 | |
| Tool Cost: Estimated | 10 Lakhs INR | |
| No Of Shots | | 5,00,000 |
| Mold Utilisation For 5 Year Program | | 19% |

**PART ID NUMBER-RVMSA2CP3
PART NAME -MIRROR GLASS**

| Field Header | Field name | Field Value |
|---------------------------|---------------------------------|-------------------|
| Part Information : | Part Number : | RVMSA2CP3 |
| | Part Description : | Reflective Glass |
| | Annual Volume (#) : | 1,50,000 |
| | Commodity : | Glass Fabrication |
| | Process Name : | CNC Laser Cutting |
| | Current Supplier Name : | - |
| | Current Manufacturing Country : | INDIA |
| | Delivery Country : | INDIA |
| | BOM Qty (No's) | 1 |
| | Part Complexity : | Low |
| | Lot size (#) : | 12,500 |
| | Supply Chain Model : | Buy |
| | Packaging Type : | No Packing |
| | HS Code : | N/A |
| | Inco Terms : | EX-W |
| | Payment Terms : | 60 Days |

| | | |
|--------------------------------|-----------------------------|---------------------|
| Material Information 1: | Category : | Others |
| | Family : | Glass |
| | Description/Grade : | Silver Mirror Glass |
| | Density (g/cc) : | 2.50 |
| | Material price (₹/Kg) : | ₹ 80.00 |
| | Scrap price (₹/Kg) : | ₹ 20.00 |
| | Part Envelope Length (mm) : | 170.00 |
| | Part Envelope Width (mm) : | 92.00 |
| | Part Thickness (mm) : | 1.88 |
| | Net weight (g) : | 54.00 |
| | Reflective Area (mm^2) : | 11,010.00 |
| | Volume (mm^3) : | 21,600.00 |
| | Part allowance : (Kerf) | 1.00 |
| | Sheet Width (mm) : | 1,250.00 |
| | Sheet Length (mm) : | 2,500.00 |
| | Edge Allowance (mm) | 2.00 |
| | Parts per Sheet | 196.00 |
| | Sheet Weight (g) | 14,687.50 |
| | Scrap weight per part(g) : | 20.94 |
| | Net weight per part (g) : | 54.0000 |
| | Gross weight per part (g) : | 74.9362 |
| | Utilisation % | 72% |
| | Scrap Recovery % | 90% |
| | Gross Material cost (₹) : | ₹ 5.99 |
| | Scrap Rec Cost (₹) : | ₹ 0.38 |
| | Net Material cost (₹) : | ₹ 5.62 |

| | | |
|---------------------|---|--------|
| Total Material Cost | ₹ | 5.6180 |
|---------------------|---|--------|

| | | |
|---------------------------|--|-----------------------------|
| Manufacturing 1 : | Process Type : | Laser Cutting |
| | Laser cutting machine | Generic Glass Laser Cutting |
| | M/c Automation : | Auto |
| | Cutting Length : (mm) | 524.00 |
| | No of Starts (Piercings) : (Count) | 1.00 |
| | Cutting Speed : m/min | 3.00 |
| | Cutting Time : (min) | 0.17 |
| | Piercing Time : (min) | 0.02 |
| | Total Time : (sec) | 11.68 |
| | Setup Time (min/piece) : | 0.05 |
| | Sheet loading time (min) | 640.00 |
| | # of Direct Labors : | 0.50 |
| | # of Skilled Labors : | - |
| | # of QA Inspector : | 1.00 |
| | Direct Labor Rate /hr | ₹ 102.00 |
| Cost Drivers : | Skilled Labor Rate /hr | ₹ 115.00 |
| | QA Inspector Rate /hr: | ₹ 115.00 |
| | Sampling Rate (%) | 1% |
| | Inspection time (min) : | 5.00 |
| | Yield (Net Good Parts) (%) : | 100.0% |
| | Machine hour Rate (₹) : | ₹ 800.00 |
| | Machine Cost (₹) : | ₹ 2.5956 |
| | Setup Cost (₹) : | ₹ 0.7262 |
| | Labor Cost (₹) : | ₹ 0.1655 |
| | Inspection Cost (₹) : | ₹ 0.0479 |
| | Yield Cost (Rejected Parts Scrap Rate) (₹) : | ₹ - |
| | Net Process cost (₹) : | ₹ 3.5351 |
| Total Process Cost | | ₹ 3.5351 |
| Overheads | Material OH 5% | ₹ 0.28 |
| | Machine OH 3% | ₹ 0.08 |
| | Labor OH 2% | ₹ 0.00 |
| | Profit 8% | ₹ 0.73 |
| Total OH | | ₹ 1.09 |
| Summary | Material Cost | ₹ 5.62 |
| | Process Cost | ₹ 3.54 |
| | OH | ₹ 1.09 |
| | Total Part Cost | ₹ 10.25 |