

# MILIND M BARKALE

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## Core Competencies

- Proficient in 2D machine drawings & 3D modelling
- Expert level knowledge and hands-on practical experience in handling of mechanical equipment
- Sound system level technical knowledge
- Acquired 3D Moulding experience while working on projects related to blast hole & water well drills, tractor mounted back-hole, automated brick making machine, motor grader with automation, automated brick making machine and motor grader
- Acquired Piping Knowledge
- Basics of plot plan development
- Development of equipment & piping layouts
- Preparation of nozzle orientation
- Preparation of isometric drawings & bill of material
- Bulk MTO
- Preparation of detailed, scaled drawings of pressure vessels, piping
- Structural steel, pressure vessel internals & welding details

## Technical Skills

### Design Tools & Software:

- Autodesk Inventor 2019,
- AutoCAD 2019,
- Auto cad Plant 3D,
- Solid works 2019,
- Navisworks

**Piping codes:** ASME, ISO, JIS, BSI & PIP

### Pressure vessel codes:

ASME SEC VIII.DIV.1 & AS 1210-2010

**Storage tanks:** API 650

**Air Cool heat Exchangers:** API 661

**Structural standards:** JIS, BSI, PIP & Shell

**MS Office** (Word, Excel & Power Point)

## Professional Profile

**Mechanical Cad Engineer** with over 11+ years hands-on industrial experience in creating 2D machine design drawings and performing 3D modelling and assembly of mechanical equipment. Understands project life cycle, leads teams, estimates, plans and controls scope of work and initiates process improvements. Seeking new career challenges as a Senior CAD Engineer or Designer 3D (Mechanical).

6+ year in oil & Gas, chemical and petrochemical industries. Extensive experience in Piping 3D modeling in plant 3d, Preparation of plot plan, Equipment layouts, Piping GA's, Pipe supports, Nozzle orientation and material take of as built drawing with Site Measurement Activity, I had Worked for preparation Tin-Point Sketch with Site Measurement also.

## Professional Work Experience

**3D Cad Engineer** - Jord International Pvt. Ltd. - May 2014 to present

Report to the Project Engineer & HOD.

### Perform Autodesk Inventor modelling:

- Create 3D Model & 2D drawings of horizontal water filter, filtration conveyors, Press filter, Scrubber & water injection skid, water wash skid and header assembly.

### Perform Autodesk Inventor Parametric modelling:

- Create 3D Parametric Models of plenums, bundles, structures and fan drives assembly.
- Create auto generated Bill of Material and 2D layouts.

### Perform Autodesk & AutoCAD 3D plant modelling

- Create 3D & 2D piping ISO metric drawings as per Piping Isometric diagram.
- Drafted General Arrangement drawings as per client data and Piping Isometric 3D modelling in AutoCAD (Project setup work for piping projects).
- Make Piping study of plant respect of scope of work, Piping layout, Equipment layout, Equipment Orientation, Pipe rack Design.
- Piping, Equipment modeling, Isometric extraction & GAD in PDS & other 3D software.
- Proficient in preparing & checking of Isometric Drawing, M.T.O., & review of 3D model.
- Knowledge of use of P & ID, Vendor Drawing, Instrument Hook up, Piping Material specification & other Discipline.

Professional Qualifications	Previous Work History
<p><b>Diploma Mechanical Engineering</b> - 2009 Parul Institute of Engineering &amp; Technology, Baroda Technical Education Board Gujarat</p> <p><b>Provisional National Apprenticeship, Baroda</b> - 2005 Trade - Mechanic Motor Vehicle</p> <p><b>Industrial Training Institute, Baroda</b> -2003 Trade - Mechanic Motor Vehicle</p>	<p><b>Sr. Design engineer</b> – Vulcan Industrial Engg. Co. Ltd. - Aug 2009- May 2014</p> <p><b>Led and managed</b> a team of 4 Draftsman’s. Report to the HOD.</p> <p><b>Created 3D Models</b> for the Blast Hole Drill Machine [Drill Rig] &amp; Sub-Systems including Dust Collection system, Operator Cabin, Main frame, Under Carriage (Crawler), Mast Frame, Main Frame, and all sheet metal sub-systems.</p> <p><b>Finalized 3D Models</b>, generated 2D drawings/Layout and BOM.</p> <p>Checked 2D Drawings for Manufacturing.</p> <p>Created the Parts Manual for a whole Machine.</p> <p>Created Presentation Videos using the Autodesk Inventor.</p> <p>Created New Concept-Design for Machine Development.</p> <p>Performed trouble shooting of errors during or after designing in the shop. *****</p>
<p style="text-align: center;"><b>Achievements</b></p> <p>Innovated new design methods like Parametric and Logical programming and represented Mechanical Drawings in the best way, resulting in time savings and decrease in human errors.</p> <p>Selected amongst top 5 companies in the world for extensive use of INVENTOR software by AUTODESK in 2014. <a href="https://youtu.be/RrpKraNGM-c">https://youtu.be/RrpKraNGM-c</a></p>	<p><b>NET CAD Designers</b> - February -2009 to June-2009</p> <p><b>Perform Autodesk Inventor modelling:</b> Create 3D Model &amp; 2D drawings of horizontal water filter, filtration conveyors, Press filter, Scrubber &amp; water injection skid, water wash skid and header assembly.</p> <p>*****</p> <p><b>SYNAPSE Engineering Services</b> - April -2008 to January-2009</p> <p>Manufacturer of Material Handling equipment’s, Belt conveyor, Chain conveyor, Roll Crusher, vibratory Screen, Bucket elevator, Hemmer mills.</p> <p><b>Perform Autodesk Inventor &amp; Auto cad modelling:</b> Preparing GA layouts drawing as per as per customer requirements Preparing Drawing Material Handling Equipment’s such as Belt conveyor, Chain conveyor, Crusher, Screen, Bucket elevator. Trouble shooting of the error produce during or after designing on the shop.</p>
<p style="text-align: center;"><b>Personal Details</b></p> <p><b>Date of Birth:</b> 18.06.1986 <b>Gender:</b> Male <b>Marital Status:</b> Married <b>Nationality:</b> Indian <b>Passport #:</b> U4156833 (valid up to: 12-10-2023)</p>	<p style="text-align: center;"><b>Professional Certifications</b></p> <ul style="list-style-type: none"> <li>• AutoCAD 3D (12-02-2007 TO 03-03-2007)</li> <li>• AutoCAD 2D (08-01-2007 TO 09-02-2007)</li> <li>• Autodesk Inventor – Certified Associate (November 27, 2010)</li> <li>• Autodesk Inventor Certified Professional (November 2, 2010)</li> <li>• Autodesk AutoCAD Plant 3D 2018 (17-01-2017 to 21-03-2017)</li> </ul>