

Advance Buffalo – Mechanical Skills Level

| Level – I –(Maintenance Helper) Works under 100% supervision, perform basic mechanical maintenance | Level – II - Performs functions related to the set up, installation, maintenance, safety and repair of plant machinery, structures, systems and basic electrical/electronic work. | Level III – (Field Technician) Full autonomy, capable of lead role, possesses specialized skills |
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| Process <ul style="list-style-type: none"> ✚ Basic knowledge of mechanical physics / basic machining fundamentals ✚ Basic electricity / basic hydraulics ✚ Basic blueprint reading/drawing/schematics ✚ Basic knowledge of fasteners ✚ Basic troubleshooting ✚ Read tape measure ✚ Read & understand equipment manuals | Process <ul style="list-style-type: none"> ✚ Diagnostic & troubleshooting problems ✚ Machining skills, experience (metal removal, deburring, grinding) ✚ Power transmission ✚ Ability to adjust parts ✚ Learn instruments; ✚ Advance blueprints; use measuring tools ✚ Check own work | Process <ul style="list-style-type: none"> ✚ Knowledge of laser (align), thermal (imaging) ✚ Alignment techniques ✚ Assist engineering with design ✚ Knowledge of vibration analysis ✚ Advanced machining techniques / experience ✚ Advanced troubleshooting and diagnostic |
| Key Success factors <ul style="list-style-type: none"> ✚ Own basic tools and know how to use ✚ Standard safety oriented (OSHA)- forces, pressure, hazard ✚ Basic math / shop math (know how to do conversion) ✚ Ability to follow directions; basic computer skills ✚ Mechanical aptitude (e.g. not afraid to change brakes or a tire) ✚ Communication skills; Able to receive constructive criticism ✚ Be able to work independently or in a team ✚ Physical requirements (heavy lifting, tolerance of heights) ✚ Dress appropriately | Key Success Factors <ul style="list-style-type: none"> ✚ Enhanced Level I ✚ Mentor to Level I ✚ Advanced computer skills ✚ Hydraulics, pneumatics, AC/DC knowledge ✚ Transformers, motors, relay logic ✚ Electronics / electrical schematics; Digital logic ✚ Knowledge of lighting/HVAC ✚ Basic sketching skills (ability to convey blueprint information to others) ✚ Confident with working /communicating with other outside of company ✚ Excellent customers service skills suppliers ✚ Creative problem- solving ✚ Maintains required records (electronic and/or hard copy). | Key Success Factors <ul style="list-style-type: none"> ✚ Enhanced Level I & II ✚ Ability to train others ✚ Ability to perform pressure and vacuum testing ✚ Full knowledge of hydraulics, electrical ✚ Ability to perform failure analysis in the field and repair ✚ Field fabrication ✚ Excellent customer service skills ✚ Must be able to travel ✚ Excellent computer skills ✚ Journey person ✚ Supervisor |
| Education/Experience <ul style="list-style-type: none"> ✚ High school (GED) w/BOCES vocational ✚ Hands-on ✚ \$10-\$12 an hour | Education/Experience <ul style="list-style-type: none"> ✚ High school (GED) ✚ 3 – 5 years experience ✚ Some type of vocational tech ✚ 2 year Associates degree + but not required ✚ \$16 - \$18 an hour | Education/Experience <ul style="list-style-type: none"> ✚ 5 – 10 years experience ✚ 2 year Associates degree ✚ Above \$20 an hour |



Source: Manufacturers Electro Mechanical Summit, October 31, 2013



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Job Titles

Industrial Maintenance Mechanic

Field Technician

Machine Repair

Millwright

Maintenance Mechanic



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