**ErgoSystems Ergonomics Risk Factor Analysis**

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| --- | --- | --- | --- | --- | --- | --- |
| **STEP ONE** | **Company:** |        | **Date:** |  | **Department/****Work Unit:** |       |
|  | **Prepared by:** |       | **Time:** |       | **Safety FYIs/ Injury History:** |       |
| **Job/Task Observed:** |       | **# People Affected:** |       | **Employees Observed:** |       |

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| **STEP TWO** | **Head/Neck/Eyes** | **Shoulders/Upper Back** | **Back (Mid/Low)** | **Arms/Elbows** | **Hands/Wrists/Fingers** | **Legs/Feet** |
| **Posture** | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Look_Down.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Look_Up.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Reach_Above_Head.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Male_Shld_Shrug.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Male_Back_Bent.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Male_Extended_Back.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Two_ Arm_ Reach.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Wrist_Flexed.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Wrist_Bent_Thumb.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Squat.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Kneeling.png |
| L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Wrist_Extended.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Wrist_Bent_LittleFinger.png |
| L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Neck_Side_Bend.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Neck_Rot.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Reach_Behind_Body.png | **L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Male_Reach_Behind_Body.png** | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Female_Back_Bent_Sideways.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Male_Back_Rot.png | **L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Forearm_Palm_Down.png** | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Pinch_Grip.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Power_Grip.png | L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\One_Leg_Up_On_Toes.png | **L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Sustained_Standing.png** |
| **L:\Forms\Ergonomics Analysis Worksheet\Manufacturing Ergonomics Analysis\Images\Forearm_Palm_Up copy.png** |
| [ ]  Look down > 300[ ]  Look up > 100[ ]  Side bent > 150[ ]  Rotated > 200 | [ ]  Reach above shoulder ht[ ]  Shrugged shoulders[ ]  Reach to side of body[ ]  Reach behind body | [ ]  Flexed forward >200[ ]  Extended back > 200[ ]  Bent sideways > 200[ ]  Rotated >200 | [ ]  Fully extended arm[ ]  Rotation of wrists/ forearms, palms up/down | [ ]  Wrist flex/extend > 20o[ ]  Wrist bent to side > 15o[ ]  Pinch grip[ ]  Power grip | [ ]  Squatting [ ]  Kneeling[ ]  On one leg/up on toes[ ]  Sustained standing |
| **Force** | 0 | Light: Neutral head | 0 | Light: < 5# | 0 | Light: < 10# | 0 | Light: < 3# | 0 | Light: < 2# | 0 | NA |
| 1 | Mod: Head wt (HW) only | 1 | Mod: 5# to 10# | 1 | Mod: 10# to 20# | 1 | Mod: 3# to 8# | 1 | Mod: 2# to 5# | 1 | Mod: Body wt (BW) only |
| 2 | Heavy: HW + up to 20# | 2 | Heavy: 10 # to 20# | 2 | Heavy: 20# to 40# | 2 | Heavy: 8# to 15# | 2 | Heavy: 5# to 10# | 2 | Heavy: BW + up to 40# |
| 3 | Very Heavy: > HW + 20# | 3 | Very Heavy: >20# | 3 | Very Heavy: >40# | 3 | Very Heavy: >15# | 3 | Very Heavy: >10# | 3 | Very Heavy: BW + > 60# |
|  **Duration (static)** | 0 | Low: < 10 sec | 0 | Low: < 10 sec | 0 | Low: < 10 sec | 0 | Low: < 10 sec | 0 | Low: < 10 sec | 0 | Low: < 10 min |
| 1 | Mod: 10 to 45 sec | 1 | Mod: 10 to 45 sec | 1 | Mod: 10 to 45 sec | 1 | Mod: 10 to 45 sec | 1 | Mod: 10 to 45 sec | 1 | Mod: 10 to 30 min |
| 2 | High: > 45 sec | 2 | High: > 45 sec | 2 | High: > 45 sec | 2 | High: > 45 sec | 2 | High: > 45 sec | 2 | High: > 30 min |
| **Frequency** | 0 | Low: < 0.5/min  | 0 | Low: < 0.5/min | 0 | Low: < 0.25/min | 0 | Low: < 0.5/min | 0 | Low: < 1/min | 0 | Low: < 0.5/min |
| 1 | Mod: 0.5 to 5/min | 1 | Mod: 0.5 to 5/min | 1 | Mod: 0.25 to 3/min | 1 | Mod: 0.5 to 5/min | 1 | Mod: 1 to 5/min | 1 | Mod: 0.5 to 3/min |
| 2 | High: > 5/min | 2 | High: > 5/min | 2 | High: > 3/min | 2 | High: > 5/min | 2 | High: > 5/min | 2 | High: > 3/min |

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| **STEP THREE** | **Score *(per body part)*:** total number of checked boxes for **Posture** plus sum of numbers circled for **Force**, **Duration** and **Frequency****Risk *(per body part)* :** for each body part circle the risk level depending on the total points for that body part: **Low**: 0 to 1, **Mod**: 2 to 3, **High** > 4 |
| **Score** | \_\_\_\_\_ **LL LM LHL**  | \_\_\_\_\_ **LL LM LHL**  | \_\_\_\_\_ **LL LM LHL**  | \_\_\_\_ **LL LM LHL** | \_\_\_\_\_ **LL LM LHL** | \_\_\_\_\_ **LL LM LHL** |

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| **STEP FOUR** | **Other Factors** | **YES** | **NO** |  | **STEP FIVE** | **Discomfort Survey/Employee Input Summary** |
| **Production/Quality** – Work processes affected negatively | [ ]  | [ ]  |  | **Complete survey based on average workday.**Indicate left and right side using Key below: | **Employee Comments:** |
| **Training** – Inadequate safety or process training | [ ]  | [ ]  | **0 = NONE/MINIMAL:** Some discomfort, able to reasonable cope while performing general tasks |
| **Vibration** – Of hand/arm, related to tool use (grinders, sanders, etc.) | [ ]  | [ ]  | **1 = MODERATE:** Moderate discomfort, some difficulty in performing general activities. |
| **Vibration** – Of whole body, related to driving vehicles (fork trucks, etc.) | [ ]  | [ ]  | **2 = SEVERE:** Significant difficulty in performing general activities. |
| **Temperature/Hot** – Exposure to hot environments | [ ]  | [ ]  |  | **3 = MAX:** Maximum discomfort (unable to function, admitted to the hospital.) |
| **Temperature/Cold** – Exposure to cold environments | [ ]  | [ ]  |  |

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| **Body Part** | **Left**  | **Right**  |
| 1. **Head/Neck/ Eyes**
 | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 1. **Shoulders/ Upper Back**
 | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 1. **Back (Mid/Low)**
 | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 1. **Arms/Elbows**
 | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 1. **Hands/Wrists/ Fingers**
 | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 1. **Legs/Feet**
 | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| **Left \_\_\_\_\_\_ + Right \_\_\_\_\_\_ = \_\_\_\_\_\_\_** |

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| **Contact Stress** –Hard surface pressure on body from sitting or standing | [ ]  | [ ]  |  |
| **Contact Stress** – Sharp edge pressure on body from workbench, tool, etc. | [ ]  | [ ]  |  |
| **Tools** – Incorrect tool or tool used incorrectly | [ ]  | [ ]  |  |
| **Task lighting** – Inadequate task light for inspection  | [ ]  | [ ]  |  |
| **Ambient lighting** – Too low or too high level of ambient lighting | [ ]  | [ ]  |  |
| **Vision** – Difficulty in seeing parts/materials to assemble or inspect | [ ]  | [ ]  |  |

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| **STEP SIX** | **Total Score** |  | **STEP SEVEN** | **Action Plan** |
| **Head/Neck/Eyes** |  |  |

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| --- | --- | --- | --- |
| **Corrective Action** | **Responsible Person(s)** | **Due Date** | **Status** |
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| [ ]  | **Not Started** |
| [ ]  | **In Process** |
| [ ]  | **Completed** |

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| [ ]  | **Not Started** |
| [ ]  | **In Process** |
| [ ]  | **Completed** |

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| [ ]  | **Not Started** |
| [ ]  | **In Process** |
| [ ]  | **Completed** |

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| **Shoulders/Upper Back** |  |  |
| **Back (Mid/Low)** |  |  |
| **Arms/Elbows** |  |  |
| **Hands/Wrists/Fingers** |  |  |
| **Legs/Feet** |  |  |
| **Other Factors** |  |  |
| **Discomfort Survey** |  |  |
| **TOTAL SCORE****SCORING KEY: LOW: 0 to15 MOD: 16 to 30 HIGH: > 30**  |  |  |