1. **Revision Log**

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| Revision Log | | | | | |
| Revision Level | Revision Date | Section | Description | | Revised By |
| REL | 5-18-2020 | ---- | Initial Release | | TPC |
| A | 12/1/23 | Header | Replaced GHSP logo with newer version | | B. Balok |
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| Approval: | | CN: RS,FS | | MX: JH | |
| US: JA | | Other (as req’d): DRW | |

1. **Purpose:** 
   1. To define the global standard for the use of Cleaning Methods for inprocess product cleaning and air filtration/extraxtion.
2. **Scope:**
   1. This global standard applies to all GHSP manufacturing facilities.
3. **Definitions:** 
   1. **Part Cleaning**
      1. Ionized Air
      2. CO2/Blown Ion
      3. Plasma
      4. Filtration
4. **References:**
   1. CP-WI-MFG-X301 Global Standard Production Equipment Safety, Ergonomic, and Delivery Checklist
   2. CP-WI-MFG-X327-Global Standard Assembly Equipment Manual
   3. Job Aids (Operating Standards 🡪 Job Aids 🡪8.5-Job-Aids-prod-service 🡪 Global Standards)
   4. ISO 16232-10 Cleanliness Code Test “E”
5. **Method:**
   1. **Cleaning Equipment** 
      1. Preferred Brands

*Selection outside the preferred brand requires approval by the Advanced Process Engineer and Global Standards Team*

* CO2 Cleaning
  + Cool Clean CO2
  + CleanLogix
* Plasma treating/Blown Ion
  + Plasmatreat
  + Enercon Industries Corperation
    - Start Up best practice
      * Gap nozzle to surface 3/8” +/- ¼”
      * Speed 50fpm or faster
* Ionized Air Knife
  + Nex Flow
* Air Filtration/Extraction
  + Bofa - Fumes
  + Purex – Laser dust
    1. PLC Communication

*Selection outside the preferred method requires approval by the Advanced Process Engineer and Global Standards Team*

* EtherNet/IP
* Serial
* Discrete I/O
  1. **Verification**
     1. Tin foil Coverage verification (example 6.1.1-6.1.2)
     2. ISO test Partical extraction
     3. Gravimetric
     4. Filtrex partical counter
     5. Dyne Pen
     6. Suface Analyzer
        1. Kruss (brand)
  2. **Audible Alert**

1. **Records:**
   1. **Tin foil test for CO2 cleaning coverage. (save in Sharepoint program file: Documents/Manufacturing/Advanced Procesing/Deliverable)**
      1. **Poor**
         1. 
      2. **Good**
         1. 