

## CASE STUDY



### Precision cleaning prior to assembly

Machine: EGAclean 4200  
Industrial sector: Micromechanics / 122



- Industry:** Industry for ball bearings
- Cleaning problem:** Replacement of a chlorinated solvent machine (Trichloroethylene) for intermediate and final cleaning
- Soiling:** Cooling lubricants, mineral oil and abrasions
- Solution:** Cleaning under vacuum with non-chlorinated AIII hydrocarbon
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|----------|-----------------------------------|-------|--------|
| Phase 1: | Immerse cleaning                  | 70 °C | 3 min. |
| Phase 2: | Immerse cleaning with ultrasonics | 70 °C | 3 min. |
| Phase 3: | Vapour phase                      | 90 °C | 4 min. |
| Phase 4: | Vacuum drying                     | 60 °C | 5 min. |
- Approx. cycle time: 15 min.
- Requested quality:** Precision cleaning, noise control using an Anderson machine. NAS 1638 test (counting of particles)
- Return on investment:** The machine complies with legal requirements (EU). The cleaning and drying quality corresponds to the results achieved with the chlorinated solvent machine. Operating costs and especially the solvent and energy consumption as well as the disposal costs are lower. The continuous vacuum distillation guarantees an oil concentration below 300 ppm even though 1 litre of oil is dragged in per charge.
- Characteristics of the application:** No risk of corrosion. This customer's subsidiary in Poland had a very high oil drag in (approx. 15 litres/day); for this reason an EGAclean 4200 has been installed.