



## ***SAT “No-metal parts” Pumps***

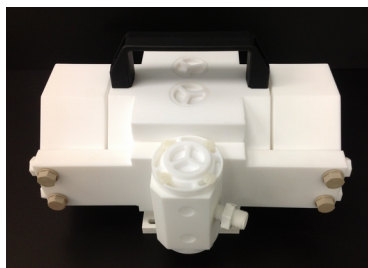
### **Comparison Chart - model SAT130Plus**



## Comparison with main competitors



Vs.



### 44 good reasons for choosing SAT130 Plus Pump

|  | IWAKI<br>FS-30HT1/T2 | SAT<br>SAT 130Plus |
|--|----------------------|--------------------|
| Bellow   | YES                  | YES (Patent SAT)   |
| Metal-Free PTFE/PFA liquid path                    | NO                   | YES                |
| Ergonomic design                                   | NO                   | YES (Patent SAT)   |
| PLC Schedule maintenance                           | NO                   | YES (Patent SAT)   |
| Leak-proof, machined design                        | NO                   | YES                |
| No elastomer O-rings, no leaks, never retorque     | NO                   | YES                |
| No lubrication in shift mechanisms                 | N/A                  | YES                |
| No electric motors, which generate heat            | N/A                  | YES                |
| Pneumatic Logic™ minimizes pulsation and vibration | N/A                  | YES                |
| Various liquid connection options                  | NO                   | YES                |
| Safe, leak-free operation due to no-metal design   | YES                  | YES                |
| Ceramic in air shuttle valve                       | N/A                  | YES                |



|  | IWAKI             | SAT                   |
|--|-------------------|-----------------------|
|  | FS-30HT1/T2       | SAT 130Plus           |
| Minimal parts for durable design                     | YES               | YES                   |
| Class 100 cleanroom assembly, testing, and packaging | YES               | YES                   |
| Ultrapure cnc machine                                | NO                | YES                   |
| Easy to install and service                          | YES               | YES                   |
| Proven reliable to 200 million+ cycles               | YES               | YES                   |
| No preventative maintenance during one-year warranty | YES               | YES                   |
| External Tube  | YES               | NO                    |
| External Tube  | YES               | NO (Screw Patent SAT) |
| Soppressor inside check valve                        | NO                | YES (Patent SAT)      |
| Constant flow  | NO                | YES                   |
| Special design check valve                           | NO                | YES (Patent SAT)      |
| Risk metallic contamination                          | YES               | NO (Patent SAT)       |
| Risk air line contamination                          | YES               | NO                    |
| Max Flow   | 30 lt/min         | 30 lt/min             |
| Max Temperature                                      | 180°C             | 210°C                 |
| Max Pressure   | 5 bar             | 4,5 bar               |
| Dry Suction  | 1 mt              | 1,2 mt                |
| Shuttle  | N/A               | YES (Ceramic)         |
| Air Max  | 5 bar             | 4,5 bar               |
| DE x DI Tubing                                       | 1/4" npt          | 1/4" npt              |
| Piping for fluid                                     | 19 x 15, 8 (3\4") | 12,7 (1\2")           |
| Weight   |                   | 7 Kg                  |
| Dimensions   | 390 x 150 x 180   | 280 x 185 x 120       |
| Compact  | NO                | YES (Patent SAT)      |
| Handle   | NO                | YES (Patent SAT)      |
| Ultrapure  | YES               | YES                   |
| Repair service inline                                | NO                | YES                   |
| Bellow long lifetime                                 | NO                | YES (Patent SAT)      |
| Price  | High              | Lower                 |
| Maintenance cost                                     | High              | Lower                 |
| Warranty one year                                    | YES               | YES                   |
| Local Assistance                                     | NO                | YES                   |