OUTSTANDING VALVE PERFORMANCE IN SEMI F104 AND F57 TESTING

Products manufactured for use in ultra high purity applications — such as semiconductor or pharmaceutical industries — must ensure contaminants are not introduced during the process. Valves used in these services must deliver the highest levels of purity and performance.

Trace analysis testing was performed by an independent, accredited test lab using an ultrapure water rinse. The test results prove the Amresist Acris® PFA lined butterfly valves contribute far fewer particles than the allowable maximum limits of SEMI F104 and F57 — validating the suitability of these valves for ultrapure applications.

Amresist Acris® PFA Lined Butterfly Valve

PARTICLE CONCENTRATION

SEMI F104 allows a maximum limit of 0.01 particles/mL. Bray butterfly valves are compliant with SEMI F104 limits.

RESULTS SUMMARY			SPECIFICATION
Process flow	5.0	L/min	—
Rinse time	60.0	min	—
Water resistivity	18.18 (+/– 0.02)	MΩ-cm	>18.0
Water temperature	23 (+/– 1)	°C	25 (+/– 5)
Background	<0.03	particles/mL	≤0.2
Particles in water [1]	<0.005	particles/mL	≤0.01
Particle size	—	um	≥0.05

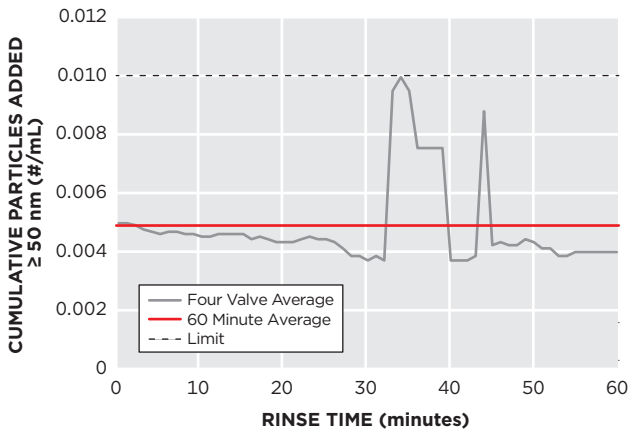
TOTAL ORGANIC CARBON CONCENTRATION

SEMI F57 defines a TOC limit of <1 ppb. Bray butterfly valves achieved an average TOC value of 0.003 ppb.

RESULTS SUMMARY			SPECIFICATION
Process flow	5.0	L/min	—
Rinse time	60.0	min	—
Water resistivity	18.18 (+/– 0.02)	MΩ-cm	>18.0
Water temperature	23 (+/– 1)	°C	25 (+/– 5)
TOC [1]	0.04	ppb	<1

NOTES:
1 Average of four valves for last hour of rinse volume limit.

TOTAL PARTICLES ADDED



TOTAL ORGANIC CARBON ADDED