

## IPEX's Silicone Free Valves

IPEX silicone free valves are expertly cleaned within a new clean room facility, conforming to ISO 14644-1 clean room standards. The facility utilizes a three stage chemical cleaning process, including ultrasonic cleaning tanks, to ensure all valve components are free from traces of silicone. The valve is then dried using a compressed air system and bagged within a dual skin silicone free package to prevent contamination. In addition, a non-silicone lubricant is used for both the ball valves and butterfly valves to maintain efficient operation over the lifetime of the system. With this technology, valves are supplied to you silicone free by IPEX.

### Why Silicone Free?

Silicone is present in a large number of products such as greases, oils, lubricants, and personal health care products. In the painting and inking industry, the presence of silicone could be detrimental. Silicone based products are relatively chemically inert and are very difficult to remove. In electrodeposition and painting processes, silicone prevents successful adhesion and causes surface defects, such as "cratering" or "fish eyes". Surface defects can be very costly for manufacturers, as often, the flawed components will need to be scrapped. To avoid the risk of such defects, some manufacturing facilities stipulate that only products and components guaranteed to be free from traces of silicone can be installed.



All Silicone free valves are double bagged to prevent contamination



"Cratering" or "Fish Eye"



"Cratering" or "Fish Eye" on a Metal Surface

### Clean Room Washing & Assembly Procedure



1. Airlock to Prevent Contamination
2. Chemical Washing
3. Flushing with Water
4. Flushing with Demineralized Water
5. Valve Assembly
6. Valve Testing
7. Double Bag Product Exits Clean Room

Product Group	Type	Size	Description	Sealing Material	PVC	CPVC
Ball Valves	VXE	1/2" – 4"	Two Way Light Industrial Ball Valve	EPDM & FPM	•	•
	VKD	3/8" – 4"	Two Way Industrial Ball Valve	EPDM & FPM	•	•
	TKD	1/2" – 2"	Three Way Ball Valve	EPDM & FPM	•	•
Butterfly Valves	FK	1-1/2" – 6"	Industrial Butterfly Valve	1 1/2" – 2" (FPM only) 2 1/2" – 6" (FPM or EPDM)	•	•
Diaphragm Valves	DK	1/2" – 2-1/2"	Industrial Diaphragm Valve	EPDM & PTFE	•	•
	VM	3" – 4"		EPDM & PTFE	•	•
Check Valves	SSE	3/8" – 4"	Spring Check Valve	FPM	•	•
	SXE	3/8" – 4"	True Union Check Valve	EPDM & FPM	•	•
Specialty	RV	1/2" – 4"	Sediment Strainer	EPDM & FPM	•	•

**NOTE:** Additional valves are available, please contact IPEX for more information



### Automotive

Wet liquid coatings are composed of pigmentation molecules immersed in a solvent; the solvent can be an organic media or water. During electrophoretic coating (e-coat), an electrical current is applied between the metallic component and the medium. Cathaphoresis is also widely used in the automotive industry where it ensures a full and quick coating, especially in the less accessible parts of the vehicle's body and frame. IPEX's Silicone Free plastic components guarantee that silicone contamination is not introduced into this process.

### Household Appliances

The aesthetic appearance of household appliances is essential for sales. The presence of contaminants (oil, grease, and silicone) on the base metal surface will cause surface defects when the product is painted. IPEX's Silicone Free products ensure the ideal level of product quality to meet the demands of this industry.



### Pharmaceutical

With a high resistance to corrosion and low leaching behaviour, IPEX's plastic products are ideally suited for the pharmaceutical industry. The conveyance of pressurized fluids is a common component of the pharmaceutical production process. IPEX's Silicone Free products are tested to ensure the highest level of purity and reliability.

### Metal Surface Treatment

Oils and greases left on a metal surface will impair good adhesion between the base material and any coating. IPEX's Silicone Free components ensure that additional contaminants are not introduced into the system.



### Food and Beverage

Corrosion resistance properties and low inner surface roughness make plastic an excellent choice in the food and beverage industry. Plastic components ensure the lowest level of biological film growth and retain FDA requirements while remaining competitively priced.



### Contact us

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