



# PARTS WASHING FOR STEREO LITHOGRAPHY



SYSTEM MK36/WRU

# Why Do I Need A Stereo Lithography Parts Washer?

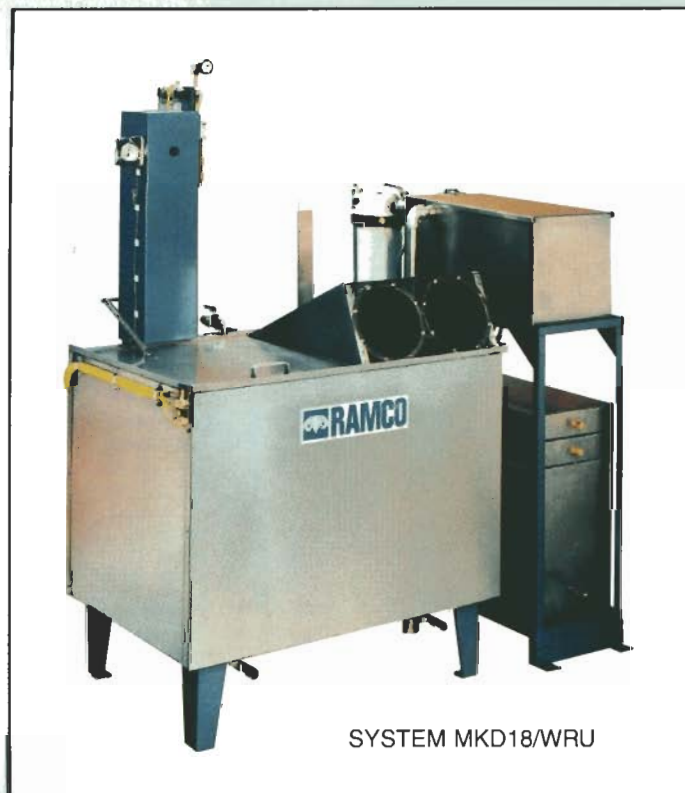
When parts are produced by an SLA machine they are coated with a thin film of resin. The resin must be removed or the liquid will become permanently attached to the part as a solid during the post curing operation. The removal process must be fast, easy and efficient while minimizing human exposure to both the liquid resin and the cleaning solvent. Not only must the process clean efficiently, but it should also minimize consumption of material and minimize generations of waste.

## **Automatic**

The system cleans using mechanical agitation in a tank of water soluble non-flammable solvent. It is automatically operated by a timer and pneumatic controls to wash SLA parts in an enclosed chamber for a specified period of time. When the cleaning is complete the cover is opened and the parts removed from the solvent.



*The Rinse Station includes a lexan lid with built in rubber gloves.*



SYSTEM MKD18/WRU

## **Accurate**

The system uses TPM, a polypropylene solvent which efficiently removes resin, but does not attack the SLA parts or cause them to swell. Some solvents such as acetone or alcohol can be absorbed by the parts before they are post cured causing them to swell in size thereby compromising accuracy.

## **Efficient**

Mechanical agitation is the best method for cleaning SLA parts. The platform oscillation from RAMCO's patented Floating Cylinder is both gentle and effective. The solvent flows over and through the parts removing resin from blind holes and crevices. After washing the parts are transferred to a Rinse Station. A hand held spray gun and a compressed air blow off gun are used under a domed lexan cover to thoroughly rinse and dry the SLA parts. The end result is a dry, tack free surface. The system reuses the TPM and the rinse water thereby conserving materials and minimizing waste products.

## Choose from two models to meet your requirements

### TPM Wash Station

The wash station is constructed of stainless steel and features pneumatic platform agitation. It has a built in transfer pump to aid in TPM changeouts. A stainless steel grate is included.

### Water Rinse Station

The rinse station is constructed of stainless steel and includes a domed Lexan lid with built in rubber gloves.

Attachments include air and water hoses with spray nozzles. The platform is constructed of stainless steel.

### Water Recycling Unit

The water recycling unit is constructed of stainless steel and is mounted on the right side of the water rinse station. It recycles the rinse water. The water is exposed to ultraviolet light which solidifies the resin so that it can be effectively filtered. The ultraviolet processing tank has a float switch that controls the main pump, a filter system and a storage tank for the processed water. There is also a demand pump and final filter that delivers processed water filtered to 5 microns through a hose with a trigger nozzle.

*The system consists of a TPM wash station, water rinse station and a water recycling unit.*



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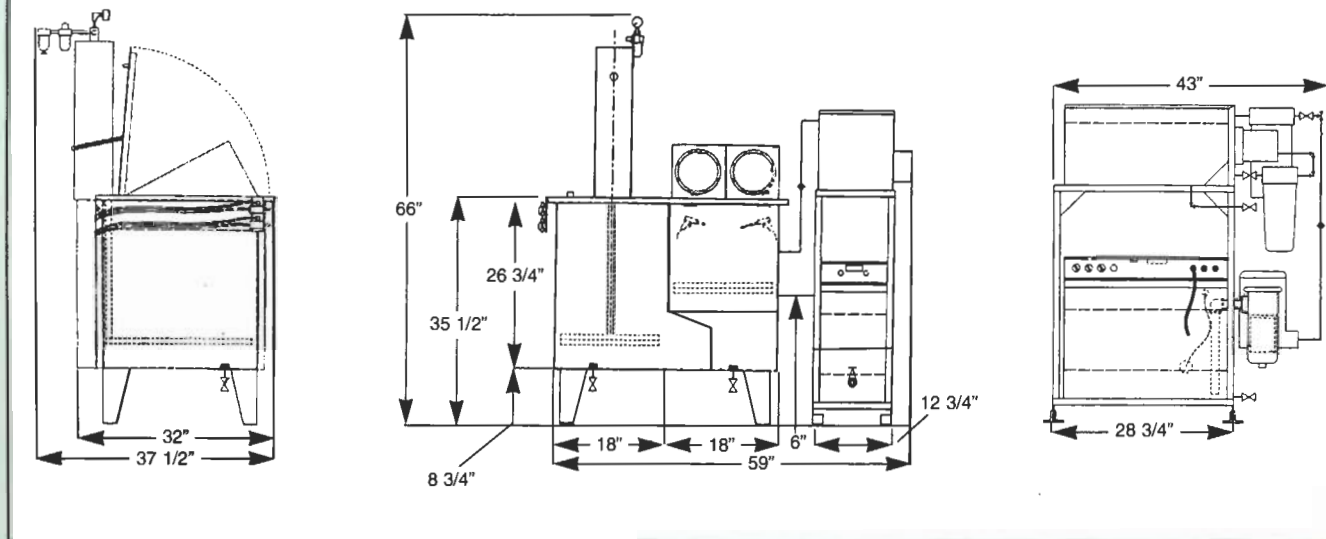
### Specifications

Dimensions	WASH	RINSE	Dimensions	WASH	RINSE
<b>Tank Inside:</b>			<b>Tank Inside:</b>		
Length	18"	18"	Length	36"	36"
Width	26"	26"	Width	26"	26"
Height	26 1/2"	13"	Height	26 3/4"	26 3/4"
<b>Work Space:</b>			<b>Work Space:</b>		
Length	16"	16"	Length	34"	24"
Width	21"	21"	Width	21"	21"
Height	17"	13"	Height	18"	18"
<b>Solution Level:</b> (above tank bottom)			<b>Solution Level:</b> (above tank bottom)		
Height	21"	10"	Height	21"	11"
<b>Liquid Capacity:</b> Gallons	55	7	<b>Liquid Capacity:</b> Gallons	90	44
<b>Load Capacity</b>	150 lbs.	150 lbs	<b>Load Capacity</b>	150 lbs.	150 lbs.
<b>Service Facilities</b>			<b>Service Facilities</b>		
Drain Valve	1"	1"	Drain Valve	1"	1"
Overflow	1"	1"	Overflow	1"	1"
Air Inlet	1/4"	1/4"	Air Inlet	1/4"	1/4"
Water Inlet	3/4"	3/4"	Water Inlet	3/4"	3/4"
Air Supply	30-125 psi	30-125 psi	Air Supply	30-125 psi	30-125 psi
Air Consump.	3-5 CFM	3-5 CFM	Air Consump.	3-5 CFM	3-5 CFM
<b>Agitation Data:</b>			<b>Agitation Data:</b>		
Short Stroke	2" - 4"	—	Short Stroke	2" - 4"	—
Long Stroke	5" - 9"	—	Long Stroke	5" - 9"	—
Up and down	40 - 240	—	Up and down	40 - 240	—
Motions per minute	40 - 240 (long stroke)	—	Motions per minute	40 - 240 (long stroke)	—
	30-70 (short stroke)	—		30-70 (short stroke)	—

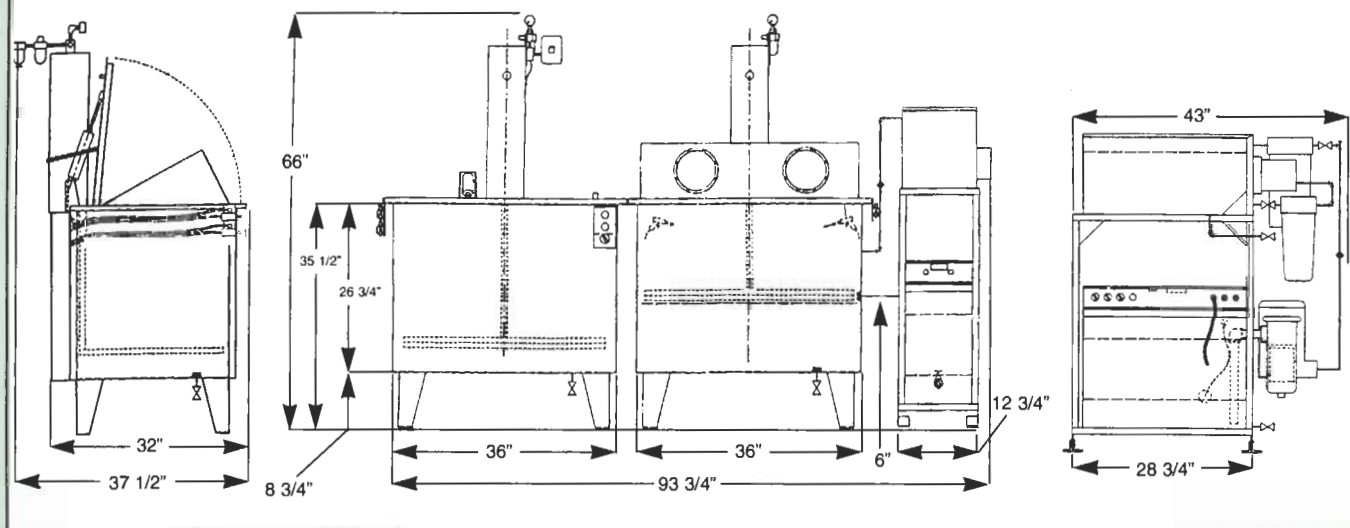
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## DIMENSIONAL DRAWINGS

MKD18/TPM WASH • RINSE UNIT • SA-WRU-WATER RECYCLING UNIT



MK36/TPM WASH UNIT • MK/36RU RINSE UNIT • SA-WRU-WATER RECYCLING UNIT



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