NEWS BULLETIN ON DEBURRING, FINISHING, WASHING & CLEANING



No.1 Surface Engineering Solution Provider with over 4000 Installations

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Automatic, Multi-stage Ultrasonic Cleaning Machine for Precision Cleaning

Applications:





Engine Parts



Clutch Housing



Transmission parts



Shock Absorber



Aluminium Diecasting







Features	Advantages
Spray, Ultrasonic and Immersed Flood Processes	Multiple Washing / Rinsing Processes
Pre-programmed, Automatic, Material Handling System	Higher Productivity due to simultaneous handling of multiple baskets
Gradual, step-down type, multi-stage Filtration and Contamination separation mechanism	Filtered fresh cleaning medium is available for every cycle, leading to consistent cleaning quality
Basket Rotation Mechanism	Maximum exposure of component surfaces to washing, rising and drying processes

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CASE STUDIES

Multi-stage Ultrasonic Cleaning

Objective	: To remove buffing dust from surface
Component	: Shock Absorber Part
Input contamination	: Buffing Dust
Expected cleaning	: Free from Buffing Dust
Requirement	
Present Method Solution provided by GALA	: Manual cleaning
Machine	: Two stage Ultrasonic Cleaning with on-line filtration
Cleaning Media	: Aqueous, Alkaline
Stages in the Machine :	
First Stage	: Ultrasonic Cleaning
Second Stage	: Hot Dip Rinsing
Advantages	: 1) Increased productivity



Single Piece Flow Ultrasonic Cleaning

Objective	: To remove buffing dust from surface
Component	: Swash Plate
Input contamination	: Water based coolant and loose burr
Expected cleaning	Surface Free from coolant and loose burr
Requirement	
Present Method	: Manual Wash
Solution provided by GALA	
Machine	: Single Piece Flow Ultrasonic Cleaning
Cleaning Media	: Aqueous, Alkaline
Stages in the Machine :	
First Stage	: Ultrasonic Cleaning
Second Stage	: Spray Rinsing
Third Stage	: Air Blow-off
Fourth Stage	: Hot Air Blow-off
Advantages	: 1) No manual intervention 2) Consistent cleaning



- 3) 70% reduction in labour cost









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Third stage

Fourth stage

Advantages

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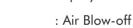
Before

Before

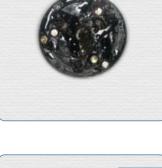
After

Conveyorised Spray Washing

Objective	: To remove loose burr
Component	: Clutch Hub
Input Contamination	: Loose burr
Expected cleaning	: Surface Free from loose burr
Requirement	
Present Method	: Batch washing
Solution provided by GAL	A
Machine	: Conveyorised Spray Washing
Cleaning media	: Aqueous, Alkaline
Stages in the Machine	:
First Stage	: Spray Washing
Second stage	: Spray Rinsing



- : Hot Air Blow-off
- : 1) Single Piece Flow
 - 2) No manual intervention
 - 3) Reduced Labour Cost





4	Multi - Chamber Multi- Process Ultrasonic Cleaning
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Objective	: Precision cleaning of parts
Component	: Engine Housing
Input contamination	: Oil and Loose burr
Expected cleaning	: Gravimetric value of less than 2 mg and particle
Requirement	size of less than 600 micron
Present Method	: Batch washing
Solution provided by GALA	
Machine	: Multi-chamber, Multi-Process Ultrasonic Cleaning
Cleaning Media	: Aqueous, Alkaline
Stages in the Machine :	
First Stage	: Spray + Ultrasonic + Immersed Flood
Second Stage	: Spray + Immersed Flood
Third Stage	: Hot Air Blow-off
Advantages	: 1) High Productivity
	2) Consistent Cleaning Quality

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Chemicals for cleaning of Aluminium Die Casting parts

Product Code	Application	Nature
GEW 1101 L	Degreasing -Spray and immersion	Acidic
GEW 1221 L	Heavy Duty Degreaser works at room temperature for components	Alkaline
GEW 1201 L	Heavy Duty Degreaser for Ultrasonic / immersion method before plating	Alkaline
GEW 2142 L	Mild Acidic solution to clean / descale die cast component prior to powder coating	Acidic
GEW 2201 L	Cleaning of machine oil, cutting oil residue or shop floor oil.	Alkaline
GEW 2220L	Cleaning of oil, dust, dirt and loose burr from surface	Alkaline
GEW 2000L	To remove contaminants like shop floor oil	Neurtal
GEW 5141 L	Bright Surface finish of components	Acidic
GEW 2123L	Cleaning of oil, dust and brighten the surface	Acidic
GEW 1203L	Light duty degreaser for immersion and spray application	Alkaline

High Performance Derusting, Degreasing & Finishing Compounds & Media







Millipore Value Less Than 1mg Particle Size As Per Class A



Before Derusting



Ra ValueImprovement Upto 0.05 Micron



After Ultrasonic Cleaning



Gala Precision Engineering Private Limited

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