

# MECWASH DUO 400 SYSTEM – TECHNICAL DETAILS

**MecWash**  
nobody washes it better

# DUO 400

**NEW  
COMPACT  
DESIGN**

## General Specification

Overall Machine Size (w x d x h)	1530 x 1635 x 2235mm
Machine Unladen Weight	1500 kilos
Wash Chamber Size (w x h x l)	400 x 470 x 650mm
Maximum Load Weight	100 kilos
Load Height	1000mm
Basket Rotation/Oscillation Speed	3 rpm
Noise Level	75 dBA

## Service Connections

Power Supply	3 phase + earth 400v 50Hz
Control Voltage	24vdc
Full Load Current	54A/34KVA
Water Supply (soft or demineralised)	3 bar
Compressed Air Supply	5.5 bar
Drain Connection	1½" BSP

## Wash Specification

Wash Tank Volume	520 litres
Wash Pump Rating	1.85 kw
Wash Flow Rate	500 litres/minute
Wash Pressure	1 bar
Wash Tank Heater	18 kw
Maximum Wash Temperature	90°C

## Rinse Specification

Rinse Tank Volume	250 litres
Rinse Pump Rating	1.5 kw
Rinse Flow Rate	150 litres/minute
Rinse Pressure	2 bar
Rinse Tank Heater	12 kw
Maximum Rinse Temperature	90°C

## Drying Specification

Drying Blower	1.1 kw
Blower Flow Rate	360 m <sup>3</sup> /hour
Drying Heater	12 kw
Maximum Drying Temperature	140°C

## Standard Equipment:

- Stainless steel pump
- Stainless steel tanks, pickled and passivated
- Stainless steel wash chamber
- Stainless steel inner drum assembly
- Stainless steel wash in-line bag filter (10-100µm)
- Stainless steel rinse in-line cartridge filter (10-100µm)
- Stainless steel wash and rinse strainer baskets (500µm)
- High volume heated re-circulating spray/flood wash
- High volume heated re-circulating spray rinse
- Mains water mist spray rinse
- Insulated solution tanks
- Incalloy water heating elements
- Automatic water level control with inlet filter (5µm)
- Integral wash oil separator
- High velocity hot air dry
- Rotation, oscillation and stationary wash options
- PLC controlled with operator HMI display
- Automatic process door with viewing window
- Easy to access liquid tanks for cleaning
- Mild steel frame and panels, powder coated and stoved with RAL 7035 Goosewing Grey leatherette finish

## Optional Equipment:

- Automatic wash & rinse chemical dosing units
- Water purity cylinders, meter & alarm
- Integral steam/vapour condensation unit
- Wash baskets, containers & fixtures
- Extension of process chamber to 800-1000mm long
- Roller conveyor 400-600mm wide x 2m long with Integral drip tray, storage shelf, guide rails and end stops
- Aqua-Save Junior wash & rinse water recycling system

## HIGH PERFORMANCE COMPONENT



ROTATIONAL SPRAY/FLOOD WASH



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Rotational  
Spray/Flood  
Wash



Rotational  
Spray Wash



Rotational  
Spray Rinse



Rotational  
Mist Rinse



Rotational  
Hot Air Dry

# HIGHER STANDARDS, LOWER COSTS

THE DUO IS A COMPACT FULLY ENCLOSED SINGLE CHAMBER ROTATIONAL SPRAY WASHING, RINSING & DRYING SYSTEM FOR CLEANING ALL TYPES OF METAL AND PLASTIC ENGINEERING COMPONENTS

- No Solvents
- No Emissions
- Future Proof
- High Performance
- Competitive Price

The increasing demand for higher standards of cleaning performance from lower cost systems is provided by the new Duo component washing, rinsing and drying system from MecWash. Based on the successful Solo series washing and drying systems, of which over 200 have been supplied to customers around the world, the new Duo adds a high volume flood/immersion cycle and a powerful spray rinsing stage that together achieve very high standards of surface finish and cleanliness. The Duo wash chamber contains over 100 high volume jets that thoroughly penetrate and saturate the workload to provide clean components whether placed in metal baskets or plastic containers. The high volume cleaning process, for which MecWash is renowned, penetrates through masses of small parts and

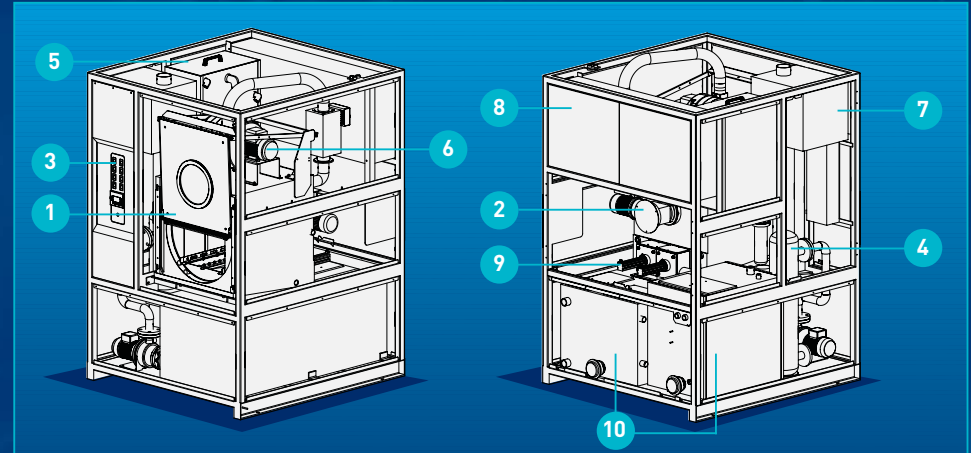
layers of components in divided plastic containers. Full rotation of the workload at 3rpm exposes all surfaces to the wash and rinse solutions and ensures effective draining and drying. Alternatively parts with simple geometries can be programmed to gently oscillate from side to side. The washing and rinsing process is followed by a high velocity ambient or heated drying cycle that completely dries the parts in total cycle times of only 5-10 minutes.

The high equipment specification includes an operator HMI display with 6 variable programs, live process data and fault diagnostics, together with an integrated oil removal process and vapour condenser.

The Duo is a compact, fully automatic and self contained aqueous cleaning system that can be located in a cell or used as a centralised facility. The further addition of the MecWash Aqua-Save water recycling system will greatly reduce the need for effluent disposal and clean downs by recycling both the wash and rinse waters. Typical applications include Turned Parts, Pressings, Extrusions, Machined Castings and Components used in the automotive, aerospace, defence, hydraulics, pneumatics, electrical, domestic and general engineering industries.



Good all round access for cleaning and maintaining the system



1. Automatic vertical insulated door with viewing window.
2. Optional rotation, oscillation and static component settings.
3. PLC/HMI Operator Display with variable programs (6), live process data and fault diagnostics.
4. In-line filtration comprising 500µm strainer baskets and 10-100µm bag and cartridge filtration.
5. High capacity integral oil separator maintains wash solution cleanliness.

6. High Velocity Hot Air Drying effectively and quickly dries even densely packed components.
7. Integral Steam Condenser eliminates need for flue/extraction
8. Integral Control Enclosure saves floor space.
9. Wash and Rinse return valves are designed to self clean and prevent carry over.
10. Insulated wash and rinse tanks minimise heat loss and save energy.

