CYCLOJET HEAVY-DUTY (LD) SERIES

For automatic cleaning of medium to large size components – whether in multiple pieces basket load or large single parts, the **Cyclojet "LD" Series** is probably the most suitable choice of equipment in the industry.

The **Cyclojet LD Series Cleaners** come in several standard sizes but can also be customized to suit the end-users' requirements. The LD Series are also designed in **Single Stage** or **Multiple Stage Cleaning**. Single Stage Cleaners are most commonly used as they are simple and competitively priced. The Multiple Stage Cleaners are used for cleaning washparts which requires a higher level of cleaning. Typical process choice for these Multiple Cleaners include : Clean > Rinse > Dry.

The **Cyclojet LD Series Cleaners** are modularly designed and have many options to upgrade basic equipment to a very sophisticated cleaning machine. The Cleaners use high pressure Spray Jet Cleaning Technology to clean and rinse the washparts effectively. The integrated spray jets covers almost all angles of the washparts and are self-propelled by the forces of the jets itself – with the aid of a special Cyclosystem-designed rotary water distributor. The wash solutions are automatically diverted to separate reservoir tanks or used as a top up of the main cleaning tank reservoir. The wash solutions are completely filtered and automatically recycled within the Cleaner. The timing for cleaning and rinsing processes are fully programmable. The Cleaners are designed with front lifting door with retractable wash platform which allows heavy parts to be loaded or unloaded into or out of the Cleaner easily. All parts of the equipment which are in direct contact with the cleaning solution are designed and fabricated with corrosion-resistance stainless steel materials. The Cleaners are also fully insulated from both heat and sound during operation and have many electro-mechanical safety interlocks to ensure a safe and reliable operation. An integrated main control panel provides all the necessary electrical control and monitoring system - using the latest PLC and HMI touch-screen technology.

Key Features:

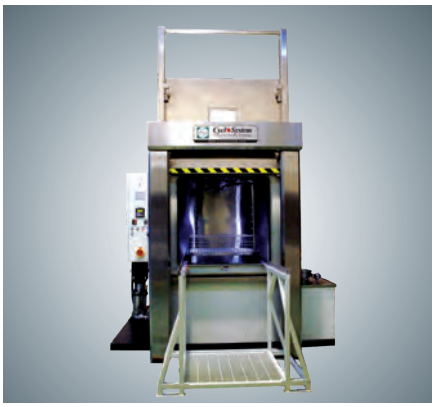
- Comes in **Small**, **Medium** and **Large** sizes
- Single or Multiple-stage cleaning process
- Suitable for cleaning of large and heavy-duty washparts
- Fully automatic operation with full process monitoring and control
- Automatic lifting door with option for pass-through dual door design
- Industry-proven design and a workhorse to many satisfied clients
- High cleaning efficiency and reliability
- Aesthetically and ergonomically designed
- Full stainless steel construction on all wetted parts
- Self-propelled or motorized high pressure integrated spray jets
- Water-based cleaning with 100% automatic filtering and recycling
- Automatic wash/rinse water diversion and filtration system
- Rugged and modularly constructed with many options for "Add-Ons'
- Electric heating with microprocessor-based digital temperature control
- Stainless steel wash basket, coarse particles strainers and piping system
- Multi-stage high pressure wash pump with pressure adjustment & monitoring
- Large reservoir tank with full access for servicing and drainage valve
- Viewing window with LED lighting and laminated glasses
- Heavy-duty wash platform c/w fixed loading station or wash basket trolley
- Large service hatch and drainage valves
- Comprehensive electro-mechanical safety interlock system
- Integrated stainless steel PLC-based HMI main control panel

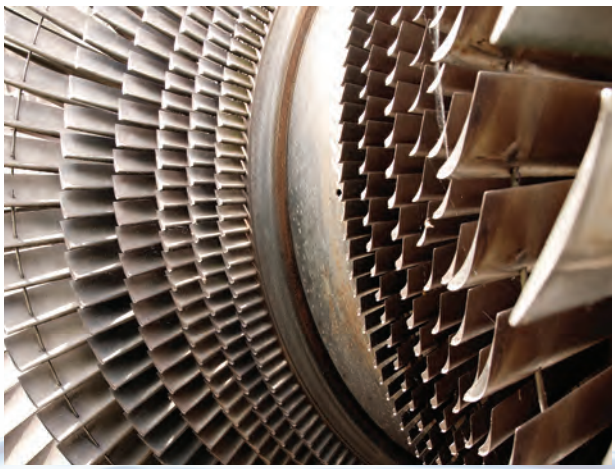
Options/Accessories:

- **Steam Extractor** – for automatic extraction of hot steam out of the wash chamber before opening the door as a personnel safety precaution.
- **Oil-Skimmer Assembly** – for automatic removal of floating waste oil out of the reservoir tank to prolong the bath life.
- **Oil-Separator Assembly** – for positive & effective removal of floating waste oil automatically out of the wash reservoir to prolong the bath life.
- **Manual Spray Gun** – for manual cleaning of the washparts using a separate pump and control system.
- **Manual Blow Dry Gun** – for manual blow drying of washparts using factory CDA supply.
- **Small Parts Basket** – for containment of small parts during the washing process to prevent them from "flying" around in the wash chamber.
- **Fine Particles Filters** – for entrapping fine particles during the washing process using filter bags system with stainless filter housing and pressure gauge monitoring.
- **Double-Lifting Door System** – instead of standard Single Door design c/w safety integrated interlocks for washparts to pass through the design.
- **Auto-Drainage Transfer System** – for automatic drainage collection and transferring of excess waste water during operation (exclude room piping).
- **Auto-Drying System** – for automatic drying of washparts within the wash chamber using integrated turbine blower and air knives.
- **Auto-Detergent Dosage System** – for automatic monitoring & dispensing of wash detergent inside the wash tank reservoir.
- **Fog Rinse System** – a low volume of automatic fresh water rinse system for Single Stage cleaning machine which also acts as a wash tank refill.

Benefits/Advantages:

- Simple, compact and reliable
- Cleaning of heavy-duty medium & large parts
- Industry-proven design
- High cleaning efficiency
- Water-based cleaning using environmentally friendly detergent
- Automatic filtering and recycling
- Low cost investment & operation
- Easy maintenance and servicing
- Optimizing operator's productivity
- Powerful to clean almost any mechanical parts
- Can be configured from a simple to a sophisticated cleaning machine



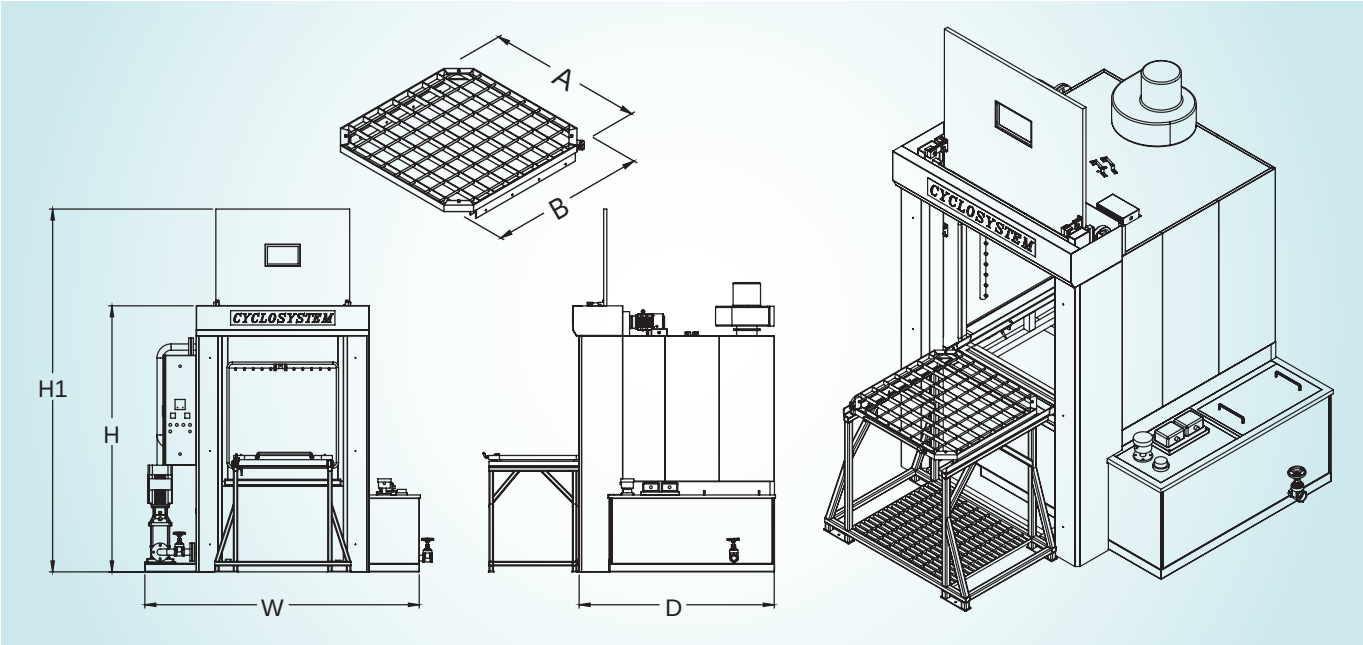


Industrial Applications:

- Aerospace & Military
- Automotive & Heavy Vehicles Servicing
- Engines & Turbines Overhaul
- Heavy Maintenance Workshop
- Medium & Heavy Manufacturing Sector
- Metal Forming & Casting
- Metal Machining
- Railway Maintenance Depot
- Shipyard, Marine & Offshore
- Others

CYCLOJET HEAVY-DUTY (LD) SERIES

(LD Single Stage)



Technical Specifications

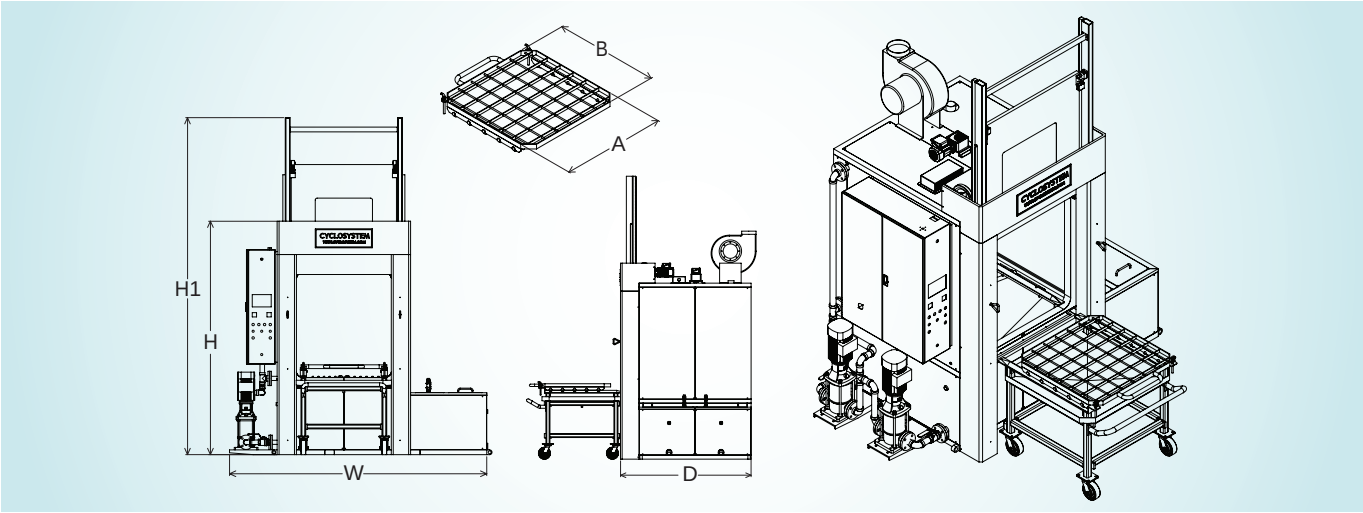
S/N	DESCRIPTIONS	SMALL	MEDIUM	LARGE
1.0	MODEL NO.	CJS-1200-LD	CJS-1600-LD	CJS-2000-LD
2.0	Wash Platform			
2.1	Maximum Size (A x B)[A]	900 x 900 mm[A]	1200 x 1200 mm[A]	1500 x 1500 mm[A]
2.2	Maximum Load Capacity	1000 Kg	1500 Kg	2000 Kg
3.0	Principal Dimensions			
3.1	Width (W)	2700 mm	3100 mm	3500 mm
3.2	Depth (D)	1600 mm	2000 mm	2400 mm
3.3	Height (H/ H1)[B]	2450/ 3550 mm[B]	2450/ 3550 mm[B]	2450/ 3550 mm[B]
4.0	Other Specifications			
4.1	Wash Tank Capacity	1000 L	1500 L	2000 L
4.2	Wash Pump Capacity[C]	4.0 Bar @ 150 Lpm[C]	4.0 Bar @ 200 Lpm[C]	4.0 Bar @ 250 Lpm[C]
4.3	Heaters Capacity (3-Ph)	24.0 Kw	36.0 Kw	48.0 Kw
4.4	Heat-Up Time (approx.)	60 ~ 90 mins	60 ~ 90 mins	60 ~ 90 mins
4.5	Wash Temperature (Max)	60 ~ 70 deg-C	60 ~ 70 deg-C	60 ~ 70 deg-C
4.6	Wash Duration (approx.)	15 ~ 30 mins	15 ~ 30 mins	15 ~ 30 mins
4.7	Exhaust Fan (Option)	2.0 m^3/ min	3.0 m^3/ min	4.0 m^3/ min
4.8	Equipment Weight (Est.)	1000 Kg	1500 Kg	2500 Kg
5.0	Utilities Requirements			
5.1	Electrical Supply[D]	380 ~ 400 Volts[D]	380 ~ 400 Volts[D]	380 ~ 400 Volts[D]
5.2	No. of Phase/ Frequency[D]	3-Phase/ 50 Hz[D]	3-Phase/ 50 Hz[D]	3-Phase/ 50 Hz[D]
5.3	Connected Load (Max)	24.0 Kw (TPN+E)	42.0 Kw (TPN+E)	55.0 Kw (TPN+E)
5.4	Air Supply/ Connections	4 ~ 6 Kgf @ 1/4" BSP	4 ~ 6 Kgf @ 1/4" BSP	4 ~ 6 Kgf @ 1/4" BSP
5.5	Exhaust Outlet Opening	Dia. 75 mm	Dia. 100 mm	Dia. 125 mm
5.6	Drainage Outlet	DN 50	DN 50	DN 50

Machine specifications are subject to change without prior notice.

NOTE : [A] *All other sizes can be offered as an option.*
[B] *These dimensions are based on standard loading height but may change due to washparts height.*
[C] *Based on approximate maximum pump capacity.*
[D] *All other electrical power supply can be offered as an option.*

CYCLOJET HEAVY-DUTY (LD) SERIES

(LD Multi-Stage)



Technical Specifications

S/N	DESCRIPTIONS	SMALL	MEDIUM	LARGE
1.0	MODEL NO.	CJM-1200-LD	CJM-1600-LD	CJM-2000-LD
2.0	Wash Platform			
2.1	Maximum Size (A x B)[A]	900 x 900 mm[A]	1200 x 1200 mm[A]	1500 x 1500 mm[A]
2.2	Maximum Load Capacity	1000 Kg	1500 Kg	2000 Kg
3.0	Principal Dimensions			
3.1	Width (W)	2700 mm	3100 mm	3500 mm
3.2	Depth (D)	1600 mm	2000 mm	2400 mm
3.3	Height (H/ H1)[B]	2450/ 3550 mm[B]	2450/ 3550 mm[B]	2450/ 3550 mm[B]
4.0	Other Specifications			
4.1	Wash Tank Capacity	500 L	750 L	1000 L
4.2	Rinse Tank Capacity	500 L	750 L	1000 L
4.3	Wash Pump Capacity[C]	4.0 Bar @ 150 Lpm[C]	4.0 Bar @ 200 Lpm[C]	4.0 Bar @ 250 Lpm[C]
4.4	Rinse Pump Capacity[C]	4.0 Bar @ 150 Lpm[C]	4.0 Bar @ 200 Lpm[C]	4.0 Bar @ 250 Lpm[C]
4.5	Wash Tank Heating (3-Ph)	12.0 Kw	18.0 Kw	24.0 Kw
4.6	Rinse Tank Heating (3-Ph)	12.0 Kw	18.0 Kw	24.0 Kw
4.7	Heat-Up Time (approx.)	60 ~ 90 mins	60 ~ 90 mins	60 ~ 90 mins
4.8	Wash Temperature (Max)	60 ~ 70 deg-C	60 ~ 70 deg-C	60 ~ 70 deg-C
4.9	Wash Duration (approx.)	15 ~ 30 mins	15 ~ 30 mins	15 ~ 30 mins
4.10	Rinse Duration (approx.)	5 ~ 10 mins	5 ~ 10 mins	5 ~ 10 mins
4.11	Exhaust Fan (Option)	2.0 m^3/ min	3.0 m^3/ min	4.0 m^3/ min
4.12	Equipment Weight (Est.)	1500 Kg	2000 Kg	3000 Kg
5.0	Utilities Requirements			
5.1	Electrical Supply[D]	380 ~ 400 Volts[D]	380 ~ 400 Volts[D]	380 ~ 400 Volts[D]
5.2	No. of Phase/ Frequency[D]	3-Phase/ 50 Hz[D]	3-Phase/ 50 Hz[D]	3-Phase/ 60 Hz[D]
5.3	Connected Load (Max)	30.0 Kw (TPN+E)	45.0 Kw (TPN+E)	60.0 Kw (TPN+E)
5.4	Air Supply/ Connections	4 ~ 6 Bar @ 1/4" BSP	4 ~ 6 Bar @ 1/4" BSP	4 ~ 6 Bar @ 1/4" BSP
5.5	Exhaust Outlet Opening	Dia. 75 mm	Dia. 100 mm	Dia. 125 mm
5.6	Drainage Outlet	DN 50	DN 50	DN 50

Machine specifications are subject to change without prior notice.

NOTE : [A] *All other sizes can be offered as an option.*
[B] *These dimensions are based on standard loading height but may change due to washparts height.*
[C] *Based on approximate maximum pump capacity.*
[D] *All other electrical power supply can be offered as an option.*