



CAT® WATER DELIVERY SYSTEM

FOR THE 777, 785D, AND 789D WTR BARE CHASSIS

AN EFFICIENT WAY FOR MINING AND QUARRY OPERATIONS TO CONTROL DUST ON HAUL ROADS.

This automated system controls the amount of water and spray patterns to prevent the hazards common with overwatering. This fully integrated Cat® design employs a self-contained hydraulic system that controls spray patterns and allows for consistent water coverage regardless of engine RPM — capable of spraying up to 0.8 L/m² at speeds ranging from 3 to 25 mph (4 to 40 kph), covering an 80 foot (24 m) wide road in one pass. Factory option available for Cat 777, 785D, and 789D WTR truck bare chassis. Retrofit kits available for 777F, 777G, and 785D trucks.

System Features

Ground speed sensing system delivers a consistent amount of water

Constant coverage spray regardless of speed

Totally independent hydraulic system

Controls integrated with the truck systems

Automatic start/stop based on ground speed

Soft pump start and shut down

Self-cleaning spray heads

Active system functions displayed on control monitor

Automatic shut off when water tank is empty

Remote tank fill controls

Intermittent spray pattern based on time on and time off or distance

Hydraulic operated cannon nozzle options

Hydraulic, electrical and water systems diagnostics

Control monitor in multiple languages

Ceramic water pump seal for improved reliability

Leverages standard tilt system for maintenance

Stainless steel pump

Optional Camera System: includes three cameras, three camera washers and cable assemblies

Technical Specifications

Operator selectable coverage	0.1-0.8 L/m ² (4 kph - 40 kph)	0.05-0.2 gal/ft ² (3 mph - 25 mph)
Maximum water flow	6814 L/min	1,800 gal/min
Water per spray head (minimum)	132.5 L/min	35 gal/min
Water per spray head (maximum)	2271 L/min	600 gal/min
Spray head opening range (minimum)	1 mm	0.04 in
Spray head opening range (maximum)	19 mm	0.75 in
Maximum size debris flushed through spray head	19 mm	0.75 in
Spray width per head (dependent on flow)	4.5-9.1 m	15-30 ft
Spray system hydraulic tank capacity	27.5 L	7.25 gal
Maximum number of rear spray heads		5
Minimum number of rear spray heads (recommended 3)		2
Maximum number of front/side spray heads		2
Minimum number of front/side spray heads		0
Maximum water from cannon (idle)*	2271 L/min	600 gal/min
Maximum water from cannon (high idle)*	6246 L/min	1,650 gal/min
Maximum cannon spray distance	61 m	200 ft
Wet water pump/hydraulic motor coupling		

*Depends on nozzle orifice and pipe size.

- Coverage rates above 0.6 L/m² may not be available at higher speeds depending on head count and configuration.
- The Auto Mode setting controls water coverage and automatically adjusts to the number of spray heads being used — independent of ground speed. This is an exclusive feature designed into the Cat® WDS software to help water more efficiently.
- Alternatively, manual mode allows the operator to set a water flow rate that is constant regardless of ground speed. This mode is not recommended for daily operation and will reduce watering efficiency and may increase fuel usage.
- Spray head opening is automatically controlled by the system to achieve Auto Mode Coverage or manual mode flow rate.
- Spray heads on competitive water distribution systems require tools and maintenance to change flow and spray pattern. Caterpillar is the only company to have variable active spray heads to regulate water spray.
- Water flow is continually adjusted during operation to conserve water and achieve desired coverage and flow rate.