

# **MEGA SPRAY HEAD VALVES**



Originally patented in 1976, the Mega Corp. Spray Head Valve is a combination water control valve and fully adjustable fan spray nozzle that produces a flat, dense variable spray pattern. The corrosion resistant, anti-clog, cast aluminum housing permits variable flow rates up to 700 gpm. Spray fan direction, volume, and width are easily adjustable by hand. Mega spray head valves are available in both pneumatic and hydraulic models to accommodate any heavy equipment application.



# **MEGA SPRAY HEAD VALVES**

Mega developed and patented its spray heads in 1976 and has continually improved them since. Each Genuine Mega spray head is fully adjustable for fan volume, width, and direction. Precision water application is a simple matter of proper selection of spray head settings and the number of spray heads activated.

Standard Mega spray head valves are constructed of a high-quality aluminum alloy metal and we also offer stainless steel models. Our spray head valves are available in both pneumatic and hydraulic actuated models.



### **Mega Hydraulic Spray Heads**

The Mega hydraulic spray head valve utilizes a custom-made, high quality, heavy-duty, double-acting hydraulic cylinder to open and close the valve portion of the spray head. This spray head is suitable for any heavy equipment prime mover, and requires a hydraulic spray control system.



#### **Mega Pneumatic Spray Heads**

Air pressure produced by the prime mover's pneumatic system opens and closes the pneumatic spray head valves. Air pressure forced into the valve closes the spray head. Release of air pressure from the top spray head cavity allows the valve to open. This spray head is suitable for any heavy equipment prime mover with a pneumatic system, and requires a pneumatic spray control system.

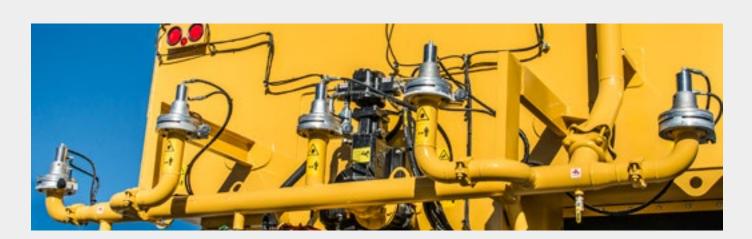
# Want a Spray Head That Lasts?



## **Mega Offers Complete Stainless Steel Spray Heads**

Our complete stainless steel spray heads are best suited to resist corrosion and abrasion by the harsh waters often found in mining and construction environments. Stainless steel's resistance to corrosion, durability along with low maintenance make Mega stainless steel spray heads the ideal spray head for you.

Stainless Steel



## Advantages and Benefits of Mega Spray Heads







## Mega Spray Heads Are FULLY Adjustable!

All Mega spray heads are adjustable and can be fine tuned to provide the optimal water distribution for a specific application. This allows for high efficiency, reduced water consumption, and prevention of roadway over watering.



Adjustable Base Plate

Mega spray heads can be rotated 360° on their base plate mounts to adjust the horizontal direction of the discharge spray for each individual spray head.



**Adjusting Ring** 

An adjusting ring allows for simple and easy control over the discharge spray flow and fan width.

#### Vertical Orientation

With the spray head set level with the ground, water exits at a 10° upward angle above horizontal, creating a uniform, fully atomized fan of water. In hot and very arid climates, water can be quickly lost to evaporation as it settles onto the hot ground. Optional swivels on spray heads allow them to be tilted downward to concentrate the spray fan onto the ground. This is also useful for flushing and sweeping operations.

Additionally, Mega offers a Vertical Side Spray (VSS) option for both hydraulic and pneumatic spray heads. With this option, a Mega spray head is mounted vertically on each side of the water tank. The resulting vertical fans of water are ideal for spraying hillsides, piles, berms, and for reinforcing fire-fighting black lines.









You Tube

Check out our spray head adjustment video on You Tube @ https://www.youtube.com/user/MegaCorpABQ

## **Overwatering Hazards**

Recently, overwatering of mine haul roads has been the subject of increased study by mine planning and safety. Many mines have improved their efficiency, lowered resource and equipment maintenance costs, and improved the safety of their working conditions by employing water conservation practices.

#### Safety

Safety is the most important factor to consider. Overwatering of roadways decreases tire traction (skid resistance), increases brake time, destabilizes fill slopes, and hastens erosion, all of which place the haulage truck operators at a much higher risk for potentially fatal or traumatic haulage accidents. In wet road conditions, haulage trucks cannot stop as quickly as on dry roads, and forceful application of brakes can easily result in the truck skidding out of control and colliding with safety berms. Additionally, standing water can soften road bases, potentially leading to washouts and collapsing of fill sections and slopes.

#### **Water Waste**

Water conservation is extremely important, particularly in drier climates where water is already a scarce and precious resource. Many governments have implemented strict regulations concerning water usage, and require mines to develop and adhere to a water conservation plan. These areas include (but are not limited to) South Africa (through the Department of Water Affairs), California (through the California Department of Conservation), Texas (through the Texas Administrative Code Title 30, Chapter 288), and most regions and cities in Australia.

#### **Labor and Resources**

It has already been mentioned that overwatering degrades road quality. In order to maintain overwatered, eroding haul roads, the roads must be serviced and repaired more frequently, at the cost of resources and man-hours. The heavier a water truck's spray is, the quicker its tank is emptied. This is perhaps the most obvious consequence of overwatering. When using too much water, water trucks are required to return to water fill stations more often, wasting both fuel and man-hours as well as subjecting the over-watered roads to heavier traffic.

#### **Tire Wear**

A haul road in good, safe condition will have a compacted top layer of fine, cushioning particles protecting tires from the larger, coarse, sharp rocks below. Overwatering erodes away this protective top layer, subjecting tires to severe wear by the exposed coarse rocks. Not only is this costly in terms of tire replacement, but also in terms of production rates and man-hours—a grader must resurface the road in order to repair it, and the road cannot be used by haul trucks during this time.



Normal haul road with compacted top layer.



Overwatered road washes away protective top layer exposing rocks below.

# HOW MEGA CAN HELP YOU OPTIMIZE YOUR WATER APPLICATIONS



At Mega we know that every mine and construction site faces its own unique set of challenges, and that no single spray system configuration will work for all applications. To tackle this challenge, Mega spray systems are designed to be versatile to meet any application requirement. In order to optimize water distribution efficiency, many environmental factors must be considered. The composition of the road, the grade of the slope, the wind, the temperature and humidity of the air, and the desired water coverage must all be taken into account.

No other tank company has the depth of experience and staff expertise available to serve our customers that Mega offers. Please contact Mega Sales or Product Support to see how we can help you improve your water spray applications.







We understand that our most precious natural resources are limited. Water conservation is essential for reducing waste and for safe road conditions, which is why we emphasize efficient water usage methods and equipment.







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