Single Cylinder vs Multi Cylinder Cone Crusher

Single cylinder and multi cylinder cone crushers are both used for secondary, tertiary and fine crushing, but they are designed for different production priorities. The main difference is not only the number of hydraulic cylinders, but also how the crusher controls adjustment, overload protection, crushing force, maintenance workload and production stability.

Single Cylinder Cone Crusher

A single-cylinder cone crusher uses one main hydraulic cylinder to support CSS adjustment, overload protection and cavity clearing. Its structure is more compact, with fewer hydraulic control points and simpler daily maintenance. It is suitable for quarry, aggregate and medium-hard to hard rock production lines where stable output, easier operation and practical maintenance are important.

- **Hydraulic control** — One main cylinder for CSS adjustment and clearing
- **Operation focus** — Stable output and simple inspection route
- **Suitable line** — Secondary/tertiary aggregate crushing circuits

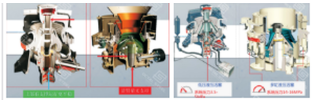
Multi Cylinder Cone Crusher

A multi-cylinder cone crusher uses several hydraulic cylinders around the crushing chamber. This design can provide stronger clamping force, more precise hydraulic control and better stability under high-load crushing conditions. It is often selected for larger production lines, harder or more abrasive materials, and projects that require higher capacity or more precise product gradation.

- **Hydraulic control** — Multiple cylinders for locking and protection
- **Operation focus** — Higher crushing force and tighter gradation control
- **Suitable line** — Large-capacity hard-rock production plants

Structural Reference

Typical chamber and hydraulic structure diagrams help clarify where CSS adjustment, chamber locking, overload release and cavity clearing are controlled.



Item	Single Cylinder Cone Crusher	Multi Cylinder Cone Crusher
Hydraulic Structure	One main hydraulic cylinder	Multiple hydraulic cylinders around the chamber
Adjustment Method	Hydraulic CSS adjustment with simpler control	More precise hydraulic adjustment and locking control
Overload Protection	Hydraulic release and cavity clearing	Multi-point hydraulic protection and stronger clamping
Crushing Force	Suitable for medium to hard rock crushing	Better for high-load and more demanding crushing conditions
Maintenance	Fewer hydraulic points, easier daily inspection	More components to inspect and maintain
Application	Quarry, aggregate, secondary and tertiary crushing	Large-capacity plants, hard rock and high-output production
Buyer Focus	Stable output, easier operation, lower maintenance complexity	Higher crushing force, tighter control, larger capacity potential

Note: Capacity, feed opening, CSS range and motor power should be confirmed by model and application.