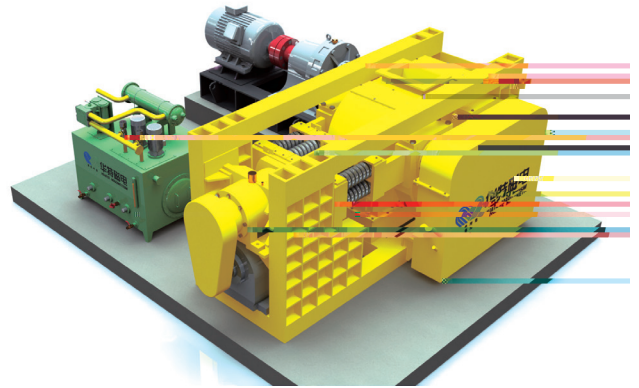


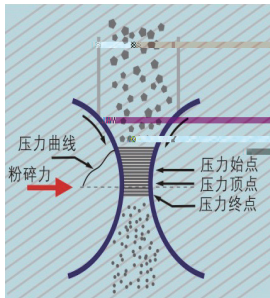
## SINGLE DRIVE HIGH PRESSURE GRINDING ROLL

### Application Scope

Single-drive high pressure grinding roll is specially designed to pre-grind the cement clinkers, the mineral dross, the steel clinkers and so on into small granules, to ultra-crush the metallic minerals (iron ores, manganese ores, copper ores, lead-zinc ores, vanadium ores and others) and to grind the non-metallic minerals (the coal gangues, feldspar, nepheline, dolomite, limestone, quartz, etc.) into powder.

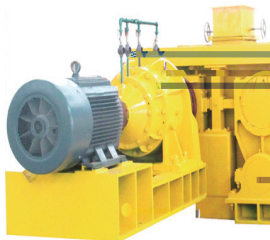


### Structure & Working Principle



#### Working Principle Diagram

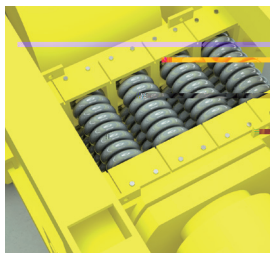
The single-drive high pressure grinding roll adopts the grinding principle of material aggregate extrusion. One is stationary roll and the other is movable roll. The two rolls rotate oppositely at the same speed. The materials enter from the upper feed opening, and are grinded due to extrusion by high pressure in the gap of the two rolls, and discharged from the bottom.



#### Drive part

45%

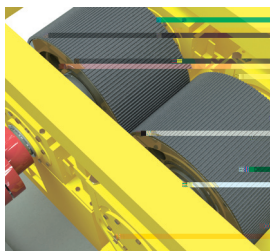
Only one motor drive is needed, the power is transmitted from the stationary roll to the movable roll through the gear system, so that the two rolls are fully synchronized with no sliding friction. The work is all used for material extrusion, and the energy consumption utilization rate is high, which saves 45% of electricity compared to conventional high pressure grinding roll.



#### Pressure applying system

95%

The combined spring mechanical pressure applying system makes the movable roll avoid flexibly. When there is iron foreign matter entering, the spring pressure applying system directly sets back and reacts in time, ensuring the operation rate is as high as 95%; while the traditional high pressure grinding roll makes avoiding, the hydraulic oil needs to be discharged through the pipeline for pressure relief. The action is delayed, which may cause damage to the roll surface or malfunction of the hydraulic system.



#### Roll surface

HRC58- 65

The roll surface is surfacing welded with alloy wear-resistant welding material, and the hardness can reach HRC58- 65; the pressure is automatically adjusted with the material, which not only achieves the purpose of grinding, but also protects the roll surface; the movable roll and the stationary roll operate synchronously without sliding friction. Therefore, the service life of the roll surface is much higher than that of the conventional high pressure grinding roll.

