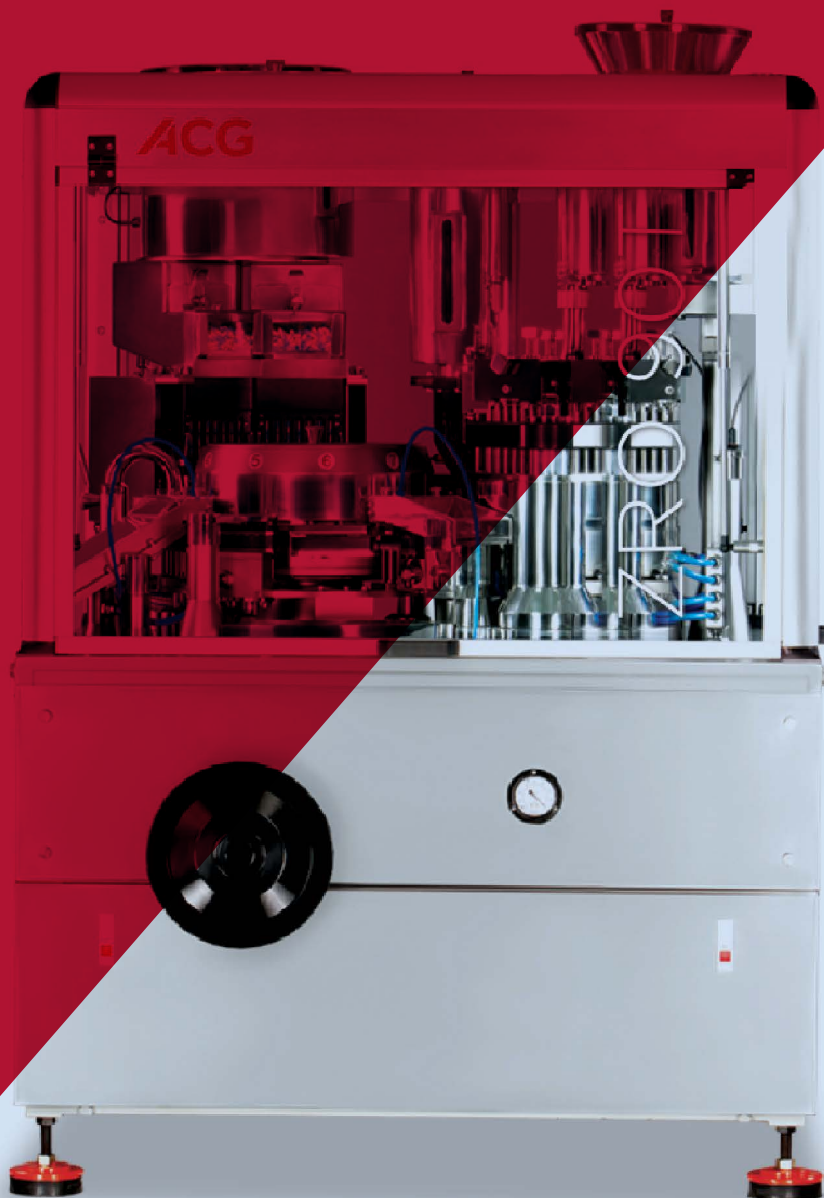


**REINVENTING  
ENCAPSULATION  
WITH ZRO  
TECHNOLOGY**



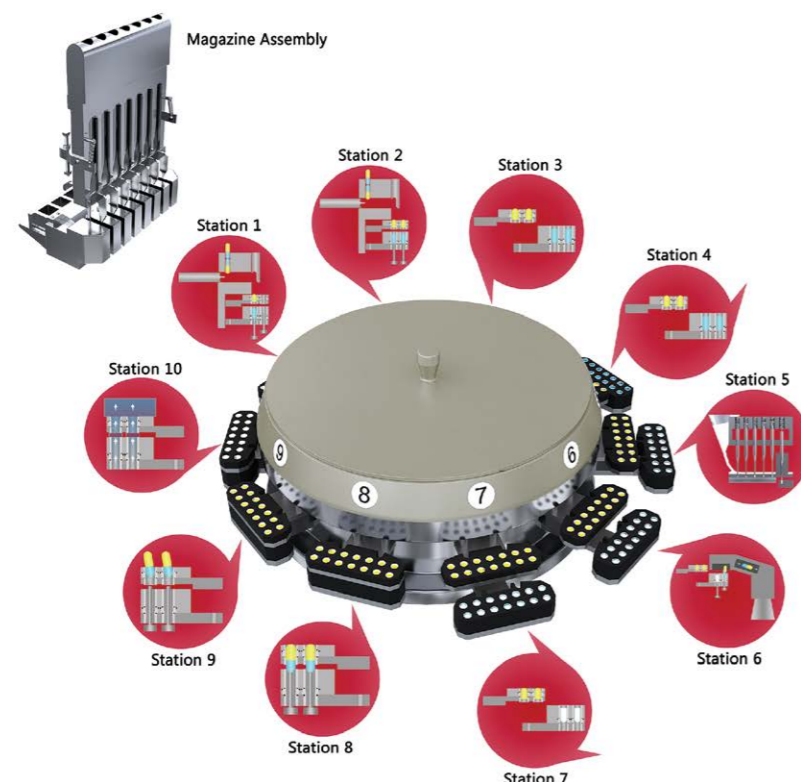
## ENSURE OPTIMIZED YIELD WITH ZERO RELATIVE OPERATION (ZRO) TECHNOLOGY

The ZRO technology, a patented solution by ACG, has been developed with the ideology of stringent weight control and optimizing yields of capsule filling. The ZRO, with its special design, helps pharmaceutical companies lower wastages and significantly enhance yield. Coupled with ACG's quality promise, ZRO increases the Overall Equipment Effectiveness (OEE).

With the pathbreaking ZRO technology, encapsulation of difficult formulations has been simplified. Developed by ACG—the pioneer of automatic capsule filling technology in India—ZRO is a modern technique that offers enhanced yield even with difficult formulations.

### The ZRO technology is ideal for formulations with the following characteristics

- Inconsistent particles
- Heat sensitive/sticky/hygroscopic nature - These formulations get stuck in the gap between the dosing disk and support pad. The repeated motion causes the formulations to become sticky thereby causing weight variation and resistance (friction).
- Free flowing powders are difficult to compress as slug formation is challenging. As a result, there is weight variation and lower yield owing to more dusting.
- Poor flow and non-slug forming
- Requiring zero-compaction and direct delivery



## ADVANTAGES OF ZRO TECHNOLOGY

### High yield

Patented ZRO technology assures increased yield over conventional encapsulation techniques by eliminating the gap that exists between the dosing disc and the support pad. This ensures constant support to the slug, and hence, better control over dosage characteristics. More importantly, it reduces dusting and formulation wastage. By nullifying the effects of centrifugal force on the powder, the ZRO machine ensures that the powder formulation is contained within the dosing section during operation.



### Exact control over weight variation

The precise slug dosing principle guarantees high fill accuracy and partial filling of up to 15 mg.



### Changeover-friendly

The machine is operator-friendly as it is designed to reduce time for changeovers, thus less efforts for the operators.

### Best-in-class Total Cost of Ownership (TCO) and Overall Equipment Efficiency (OEE)

With the benefits of minimal dusting and product wastage, reduced cleaning and changeover time, resulting in high yield, ZRO offers best in class TCO and OEE.





## ZRO SERIES

### ZRO 90T

- Up to 90,000 capsules/h for powder filling
- Up to 80,000 capsules/h for pellet filling
- Up to 42,000 capsules/h for tablet filling (single tablet)



### ZRO 200T

- Up to 2,00,000 capsules/h for powder filling
- Up to 1,70,000 capsules/h for pellet filling
- Up to 54,000 capsules/h for tablet filling (single tablet - only for 18 rows)

Disclaimer - All output figures are based on ideal inputs and operator skills.

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