

Pipe end forming — tapering, reducing and closing

ZSG50NCB cone end former · 3-station tube reducer · 16 – 165 mm tube with custom tooling

Three operations, one hydraulic head

End forming is often treated as one process, but three separate things are done to a tube end: **tapering** works the wall into a cone, **reducing** brings it to a smaller parallel diameter, and **closing** folds the end shut. What decides which one you need is the joint at the next station, not the machine. On the machines below the tooling decides the operation, so the first question to a supplier is what the finished end has to mate with.

Taper / cone end former — as published

Parameter	ZSG50NCB	Model 50	Model 60
Max tube capacity (OD × wall)	50 × 2 mm	50 × 2 mm	60 × 2 mm
Max forming length	300 mm	280 mm	350 mm
Motor power	4 kW	5.5 kW	7.5 kW
Processing speed	7 – 30 s per end	—	—
Dimensions	2770 × 900 × 1350 mm	—	—
Weight	2125 kg	—	—

Two naming schemes are published for this head — ZSG50NCB and Model 50 / Model 60 — and both are reproduced exactly as published; confirm which applies to your order. A dash means that value is not published for that model. Cone angle, tooling and supply voltage are settled at quotation.

Tube reducer — three-station, as published

Parameter	Value
Tube diameter range	16 – 165 mm with custom tooling
Common reducing sizes	60 / 80 / 120 mm
Working stations	3
Max forming length	110 mm
Contracting cycle	5 – 6 s
Main shaft centre height	150 mm
Spinning	Outside or inside
Control	NC
Start / stop	Foot pedal

Three stations let a tube pass through successive forming steps without being re-chucked by hand; the foot pedal frees both hands to hold the tube. The 16–165 mm range depends on the die set supplied, not on the machine alone.

What to send with an enquiry

- **Tube outside diameter and wall thickness**, and the material — carbon steel, stainless, aluminium, alloy, copper or brass all appear on these machines.
- **The finished end** — cone angle and taper length, the diameter you want to reduce to, or a closed end.
- **The joint it mates with** — that single detail decides whether you need tapering, reducing or closing.
- **Cycle target**: the taper head is published at 7–30 s per end and the reducer at a 5–6 s contracting cycle, so a part with two formed ends is usually quoted at twice that.

Also in this family

Tube closing machine, C / E / IO type endformers and the portable chamfering machine. Those pages do not publish dimensional tables, so no figures are repeated here — the machine pages are the reference, and a drawing is the fastest way to a quotation.

Machine pages and further reading

- Pipe tapering machine — full specification — steelpipemachines.com/posts/taper-pipe-end-cone-former-machine-taper-machine
- Tube reducer and end forming machine — steelpipemachines.com/posts/tube-reducer-tube-end-forming-machine
- Pipe tapering & end forming group — steelpipemachines.com/category/pipe-tapering-machine