AUTOMATIC ROLL FORGING MACHINE ZGD SERIES



Automatic roll forging machine ZGD series are used for preforming of work pieces with diameter maximum 40-200mm of billet, available used for final forging as well.

We can also provide semi-automatic roll forging machine which has no manipulator compared to automatic series. If you need the specifications of the semi-automatic series, please contact with us.



Mechanical Principles

Roll forging deformation is a complex three-dimensional deformation. Most of the deformed material flows along the length direction to increase the length of the billet, and a small part of the material flows laterally to increase the width of the billet. Continuous reduction of billet cross-sectional area during roll forging.



Product Structure

COMMODITY	DESCRIPTION	QUANTITY(SET)		
Automatic Roll Forging Machine	Main Machine	1		
	Manipulator	1		
	Hydraulic Station	1		
	Control Cabinet	1		

Forging Features

- High equipment production capacity (up to 1000 parts/ hour)
- Favorable structure of material fibers.
- Low maintenance costing.
- High accuracy and maximum proximity to required dimensions of finished products.
- Minimum waste (billet use coefficient is as high as 0.98).
- •Opportunities to produce a wide product range using the same equipment.
- High die life (up to 1,000,000 parts).
- Computer numerically control(CNC). A CNC machine can be programmed to control metal processing and give instructions to automatic tools, equipment, and rollers.

Application

- Automotive
- Construction
- Hardware
- Tools
- Power fittings
- Agriculture
- Other-industries customized service available







Technical Specification

	Unit	Model							
		ZGD-260	ZGD-300	ZGD-370	ZGD-460	ZGD-560	ZGD-680	ZGD-1000	ZGD-1250
Outer Diameter of Roll Forging Die	mm	260	300	368	454	560	680	990	1250
Diameter of Roller	mm	165	200	240	300	360	440	600	800
Effective Width of Roller/Die	mm	320	390	500	550	610	900	1250	1400
Rpm of Roller	r/min	80	80	66	58	52	40	10	8
Length of Forged Part max.	mm	≤260	≤350	≤500	≤600	≤700	≤800	≤1500	≤1850
Adjustment of Gap between Center of Rollers	mm	260±6	300±8	368±8	458±8	560±10	680±10	990±12.5	1250±15
Power of Main Motor	kW	15	18.5	22	30	55	132	250	315
Diameter of Billet	mm	≤40	≤50	≤65	≤80	≤110	≤140	≤170	≤200
Longitudinal Stroke of Manipulator max.	mm	330	390	490	630	758	890	5000	
Horizontal Stroke of Manipulator max.	mm	330	400	520	560	620	910	1250	1450
Adjustment of Longitudinal Position	mm	150	150	200	200	300	300	Customized	Customized
Adjustability of Vertical & Horizontal		Adjustable							
Single Horizontal Distance	mm	60-90	60-90	70-100	70-130	80-140	90-160	Adjustable	Adjustable
Rotation Angle of Manipulator	0	90	90	90	90	90	90	90	90
Normal Rolling Temperature	°C	1050-1150	1050-1150	1050-1150	1050-1150	1050-1150	1050-1150	1050-1150	1050-1150
Coaxiality	mm	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.6	≤ 0.8	≤ 1	≤1.2	≤ 1.5