



## Hydraulic CNC 4 Roller Plate Rolling Machine HC4R Series

### Basic Information

- Place of Origin: China
- Brand Name: genuo
- Minimum Order Quantity: 1
- Price: negotiable
- Packaging Details: carton box
- Payment Terms: L/C, T/T, D/P, D/A



### Product Specification

- Features: Pre-bending Function Of The Plate End,CNC Rolling Function,Main Drive Roll Is The Upper Working Roll,Hydraulically Driven Lower Roll And Both Sides Of The Roll,Computer-controlled Lift Displacement,Automatic Leveling With Synchronization Accuracy Of  $\pm 0.1\text{mm}$
- Product Name: GENUO Hydraulic CNC HC4R Series 4 Roller Plate Rolling Machine
- Ideal For: Rolling Circular And Arc-shaped Workpieces In Energy, Transportation, Petroleum, Chemical, Boiler, Shipbuilding, Hydropower, And Metal Structure Industries
- Highlight: **CNC 4 roller plate rolling machine , Hydraulic 4 roller plate rolling machine , Hydraulic 4 roll plate roller**

## 4 Roller Plate ROLLING MACHINE

— Hydraulic CNC HC4R Series —

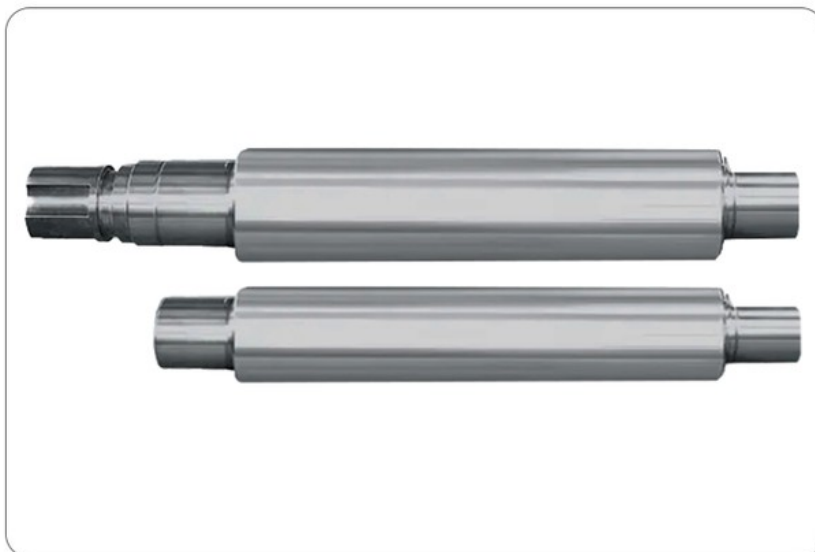


Standard Equipment	Optional Equipment
▲ SIEMENS PLC controller, Touch display	△ SIEMENS CNC control system
▲ 42CrMo solid forging roller	△ Central and side supports
▲ Schneider & Omron electrical components	△ Automatic loading and unloading systems
▲ YUKEN hydraulic valves, NO,K seal ring	△ Motorised feeding and squaring tables
▲ NSK double-row spherical roller bearing	△ Side motorised rolls
▲ Tamagawa precision rotary encoder	△ Provision for hot rolling
▲ SIEMENS main motor,Sunny pump	△ Integrated welding system
▲ iNi hydraulic motor, Peika planetary reducer	△ Automatic lubrication system
▲ Mobile wheel mounted control console	△ Automatic ejector
▲ Centralised manual lubrication	△ Customized colors

Roller is the most important components of the rolling machine, its quality and performance has a direct impact on the service life of the rolling machine and the precision of rolling.

Working rollers are made of high-strength high-quality steel 42CrMo material, after forging, roughing, quenching and tempering, HB240 ~ 300, finishing after the intermediate frequency quenching HRC47-58, according to JB/ZG4289-86 roll steel standards.

Strictly in roller manufacturing, to ensure its comprehensive mechanical properties.



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## Electrical Components

Germany SIEMENS electrical components ensure the stable operation of the machine. Reasonable line connection and arrangement greatly reduces the failure rate.

The integrated control module of hydraulic valve group makes the sliding block move smoothly and accurately. And the operator and all parts of the machine played a good protection. It's safe, stable and not easy to break.

Low Noise and Powerful Force Siemens motor guarantee the machine service life and improve the machine working stability.



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## CNC Control System

Thanks to the CNC control and PLC of SIEMENS. Excellent HMI operation interface. Make our bending machine run at will. SIEMENS

Smart Line provides a friendly interface for users to monitor the operation of machines in the control system.

GENUO Rolling machine equipped with special independent operation panel and automatic rolling program so that can realize one-button

operation. This machine can automatically rolling and forming at one time. Powerful data storage and recall functions.

Hundreds of

programs for various specifications of automated rolling. The system is compatible with manual operation programs and

can be manually

operated when needed. At the same time, the configuration software also provides users with a variety of functions,

such as formula

management, security level management, language management, etc.



## Roller Rotation

### Hydraulic Motor → Planetary Gearbox → Working Roll

The upper roller is a driving roll of 4 roller bending machine. The independent hydraulic motor on the upper roll and the high-powerbox are directly coupled(straight), not through the intermediate gear transmission, which is the most energy-saving drive method.

The hydraulic motor is equipped with an immediate brake to allow the roll to stop accurately in the pre-bending state.





## Hydraulic System

Each oil circuit is routed with two relief valve to control pressure. the maximum set pressure for each oil circuit is 25 MPa. which is mainly to

control the main cylinder pressure. and the other relief valve is set to 16 MPa, mainly to control the overturning cylinder and balancing cylinder

pressure. In order to ensure the synchronization accuracy of the main oil cylinders at both ends of each moving working roll, high-precision

displacement sensors are installed on the left and right racks and the tilting frames. Through the pressure sensors, the microcomputer control

system detects and adjusts the movements of the main oil cylinder pistons to achieve the precision of the both working roller ends.

Advantage of our hydraulic system:

a. The unique pre-discharge technology is adopted to effectively avoid hydraulic shock and improve the life of the pipeline and seals.

b. The hydraulic components are adopt Japan YUKEN and NO,K brand, high quality parts to ensure the stability of the hydraulic system.

c. Each input and output port of the hydraulic system is provided with corresponding detection points, which are convenient for maintenance

and fault checking. The oil pump adopts a lower mounted type and positive pressure oil absorption.

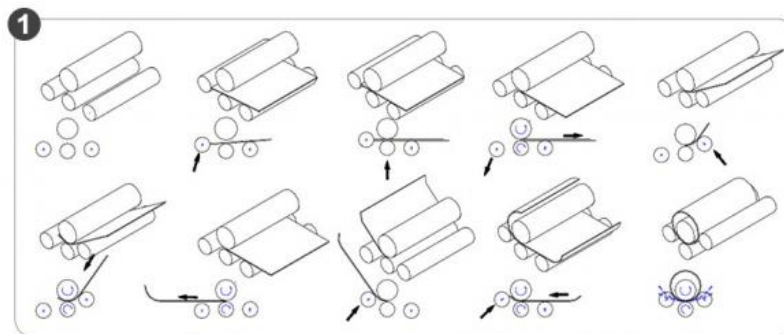
At the same time the filters, level gauges, and all transmitting devices can automatically warn of faults.





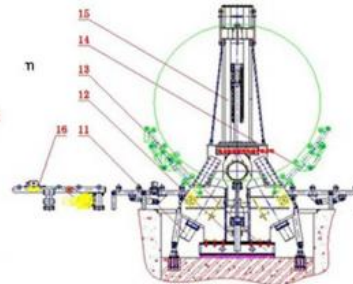
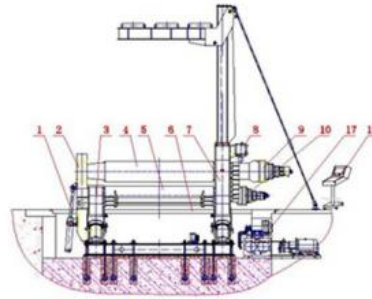
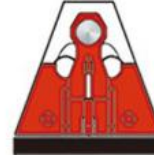
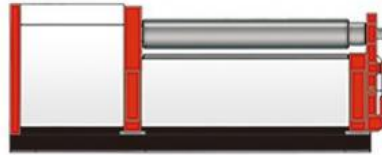
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The machine is four roller plate bending machine, its structure shown as drawing, upper roller as initiative roller, down roller and side rollers as driven rollers; upper roller is fixed, down roller does up and down movement; upper roller is mechanical initiative, while down roller and side rollers are driven by friction from plate and rollers. Down roller and side rollers are driven by hydraulic oil tank to do lifting movement. Upper roller's ventro-bearing overturn and reset are also driven by hydraulic oil tank. Rollers' bearing and oil tank are installed on left and right side of machine frame.



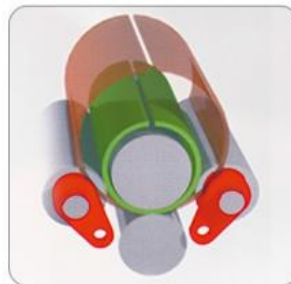


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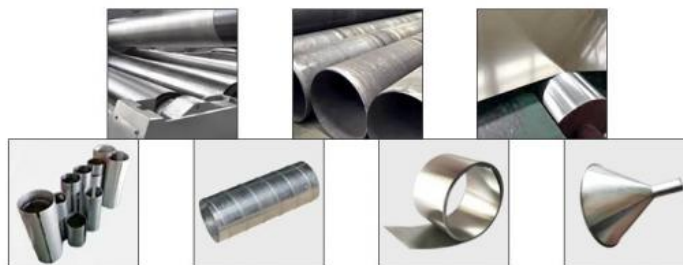
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|----------------------|---------------------------------------|---|
| 1. Overturn Cylinder | 7. Right Frame                        | 13. Bottom Frame                          |
| 2. Overturn Head     | 8. Balancing System                   | 14. Side Support System [Optional]        |
| 3. Left Frame        | 9. Upper Roller Driven Device         | 15. Top Support System [Optional]         |
| 4. Upper Roller      | 10. Lower Roller Driven Device [Opt.] | 16. Electric Feeding Electric Roll [Opt.] |
| 5. Side Roller       | 11. Side Roller Cylinder              | 17. Hydraulic System                      |
| 6. Lower Roller      | 12. Lower Roller Cylinder             | 18. Electronic Control System             |

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<b>Material</b>	High quality / Corrosion resistance
<b>Durable</b>	Long used life / Premium accessories
<b>Precision</b>	Machining / High precision rolling
<b>Work</b>	Safe and efficient / Easy to operate
<b>After Sale</b>	Exclusive service / Quality assurance

### Function Application



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Specification	Max Pre-bending Thickness	Max Rolling Thickness	Max Rolling Width	Plate Yield Limit	Rolling Speed	Upper Roller Dia	Lower Roller Dia	Side Roller Dia	Motor Power
	(mm)	(mm)	(mm)	(MPa)	(m/min)	(mm)	(mm)	(mm)	(kW)
HC4R-6X2000	6	6	2000	265	5.5	180	180	145	5.5
HC4R-6X2500	6	6	2500	265	5	210	210	165	7.5
HC4R-8X2000	6	8	2000	265	5	215	215	165	11
HC4R-8X2500	6	8	2500	265	5	230	230	180	11
HC4R-12X2000	10	12	2000	265	5	260	260	200	18.5
HC4R-12X2500	10	12	2500	265	5	280	280	220	18.5
HC4R-16X2000	12	16	2000	265	5	280	280	220	18.5
HC4R-16X2500	12	16	2500	265	5	330	330	260	22
HC4R-16X3200	12	16	3200	265	5	360	360	280	30
HC4R-20X2000	16	20	2000	265	5	330	330	260	22
HC4R-20X2500	16	20	2500	265	5	360	360	280	30
HC4R-25X2000	20	25	2000	265	5	360	360	280	30
HC4R-25X2500	20	25	2500	265	4.5	410	400	320	37
HC4R-30X2000	25	30	2000	265	4.5	410	400	320	37
HC4R-30X2500	25	30	2500	265	4.5	470	470	390	37
HC4R-30X3000	25	30	3000	265	4.5	560	520	420	45
HC4R-40X2500	35	40	2500	265	4.5	560	520	420	45
HC4R-40X3000	35	40	3000	265	4.5	650	580	480	55
HC4R-50X2000	40	50	2000	265	4	650	620	500	55
HC4R-50X3000	40	50	3000	265	3.5	720	650	520	55
HC4R-60X3000	50	60	3000	265	3.5	750	710	560	75
HC4R-70X3000	60	70	3000	265	3	750	720	600	75
HC4R-80X3000	70	80	3000	265	3	800	780	620	75
HC4R-90X3000	80	90	3000	265	3	840	820	660	90
HC4R-100X3000	85	100	3000	265	3	900	880	700	90
HC4R-120X3000	100	120	3000	265	3	1020	980	800	132

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Maanshan Genuo Machinery Manufacturing Co., Ltd.



0086 555 7168598



sales@genuogroup.com



genuocnc.com

Wanda Center 1116, Yushan District, Maanshan, Anhui, China 243000