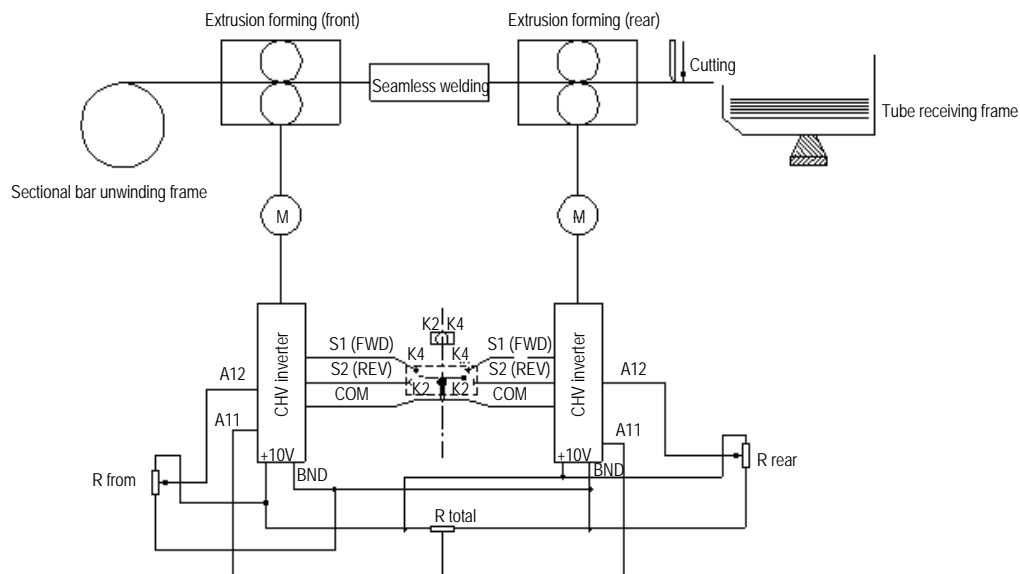


## Application of CHV to Seamless Steel Tube Processing

The new generation CHV vector inverter developed by Shenzhen INVT Electric Co., Ltd. can be applied to the processing of seamless steel tubes. The following is the application scheme of a seamless steel tube plant in Foshan City, Guangdong Province.

The processing flow of a seamless steel tube is as follows:



The process consists of front extrusion forming, high-temperature seamless welding, rear extrusion forming, and cutting. During the whole control process, it is required that the motor shall output a considerably large torque and have a highly stable speed; otherwise, the formed steel tube will have uneven structure and inconsistent thickness, which affects product quality.

Both front forming and rear forming are driven by the CHV inverter in the PG vector-free control mode. Their main frequencies are set by A11 and auxiliary frequencies are set by A12. Frequency setting is set by overlapping the main frequency with the auxiliary frequency. The start/stop status of the system and the forward/reverse rotation of the motor is controlled by a terminal.

### Set the related functional codes as follows:

1. P0.00: 0 (Vector control without PG)
2. P0.01: 1 (Terminal command channel)
3. P0.03: 1 (Analog AI1 setting)
4. P0.04: 0 (Analog AI2 setting)

5. P0.05: 1 (A frequency command)
6. P0.06: 2 (A+B)
7. P5.02:1 (Forward rotation)
8. P5.03: 2 (Reverse rotation)
9. Based on actual conditions, input reasonable values for P5.15-P5.19 as well as P5.20-P5.24, to ensure that two frequency curves conform to technological requirements.

On-site conditions are shown in following pictures:



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