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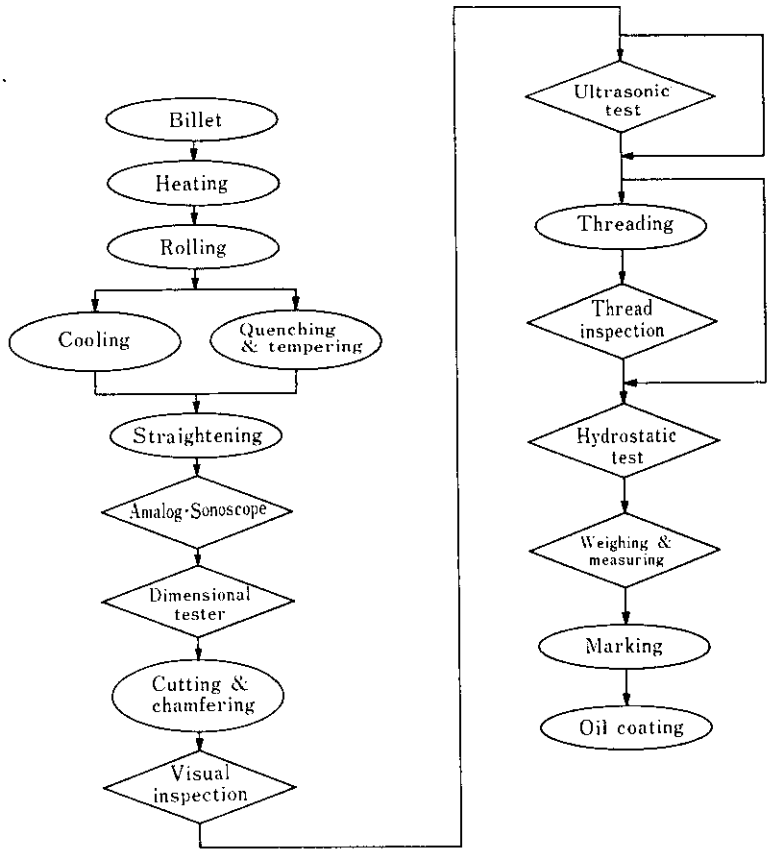
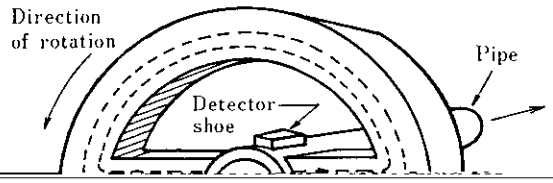


Fig. 1 Manufacturing process of medium diameter seamless tube

taneously, continuous measurement of the outside diameter and wall thickness is performed. The plant is provided with an on-line computer and piece-by-piece tracking is performed. The results of the NDI are also



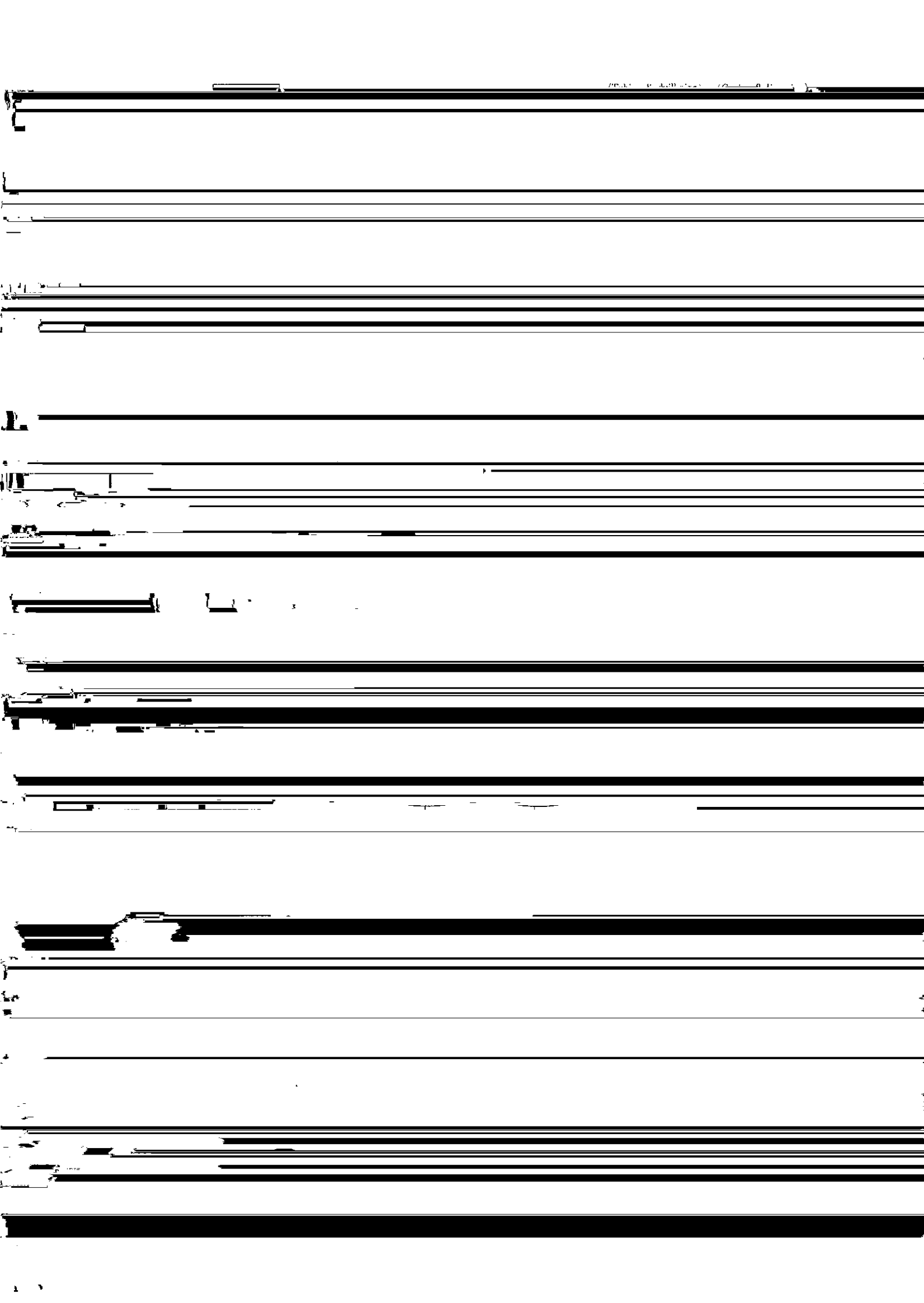
The Sonoscope section mainly detects transverse flaws, but can thoroughly detect pit-like flaws like the Analog

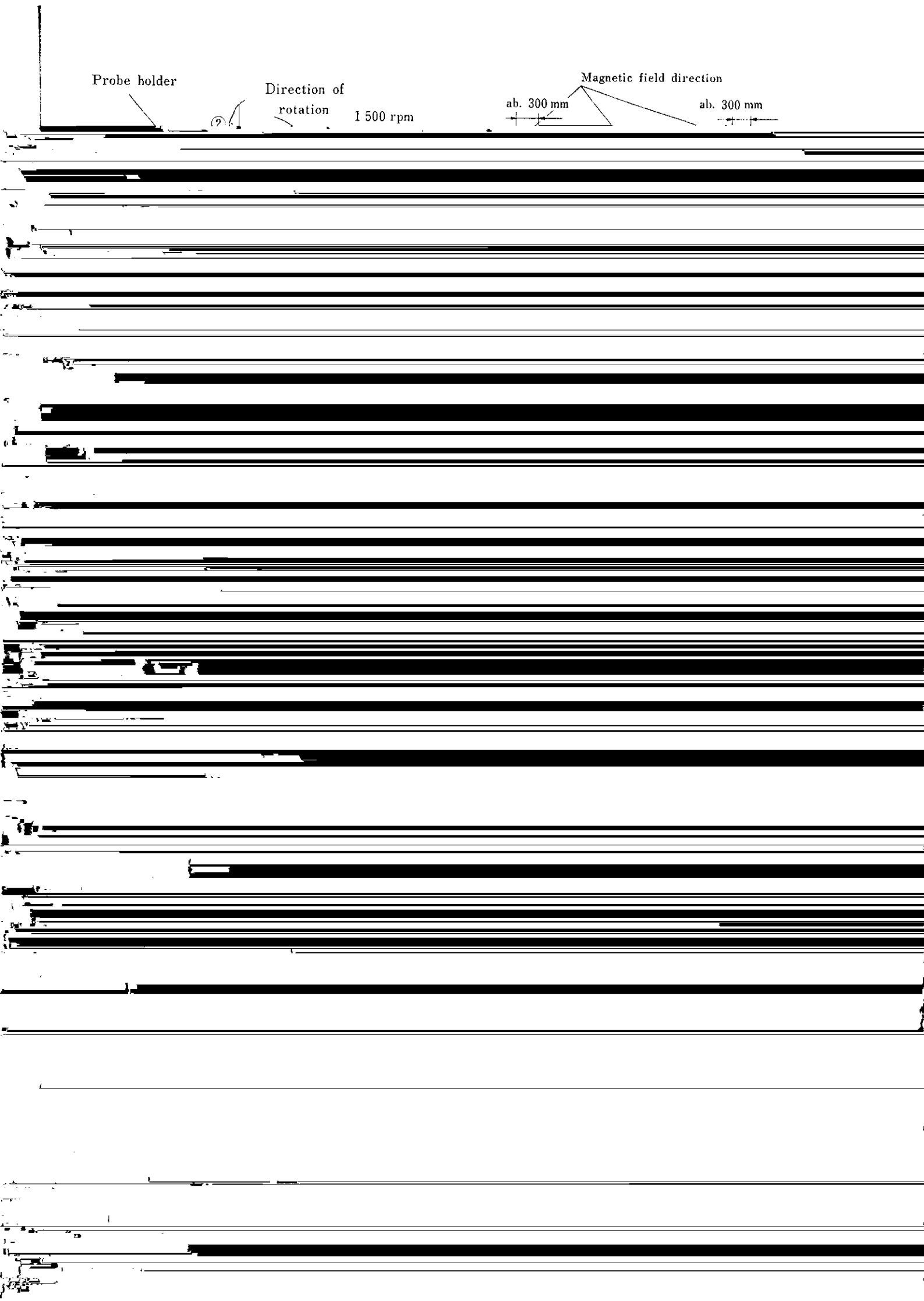
developed by Kawasaki Steel has been further modified into an ultrasonic tester for outside diameter and wall

magnetization by direct current and detect flaws on

circumference, every piece of pipe can be measured

parts, thereby enabling flaw detection at a high S/N ratio and maintenance free operation.




Probe holder
Direction of rotation
1 500 rpm
Magnetic field direction
ab. 300 mm
ab. 300 mm

and the pipe travels spirally through these detecting

line which is a long production line, a grade verification

detection by maintaining contact with the pipe surface except at the upset portion. This testing system has the following special functions like the automatic ultrasonic testing system for medium diameter seamless pipes:

(1) Automatic sensitivity setting by computer

just in front of the pipe bundling machine to perform grade verification. This system makes a comparison between the magnetic permeability of steel pipe and that of standard pipe. This tester is particularly useful for products whose hardness and microstructures vary owing to the difference in heat treatment condi-

niques of hot coils and ERW pipe and progress in non-destructive inspection techniques have made it possible to employ ERW pipe in a wide field, such as oil well casings (OCTG), high grade pipe, and pipe to be used under adverse conditions like sour gas, for which only

demonstrating high detection accuracy. For details of

5 Small Diameter ERW Pipe

OCTG are completed by the same process as that in the

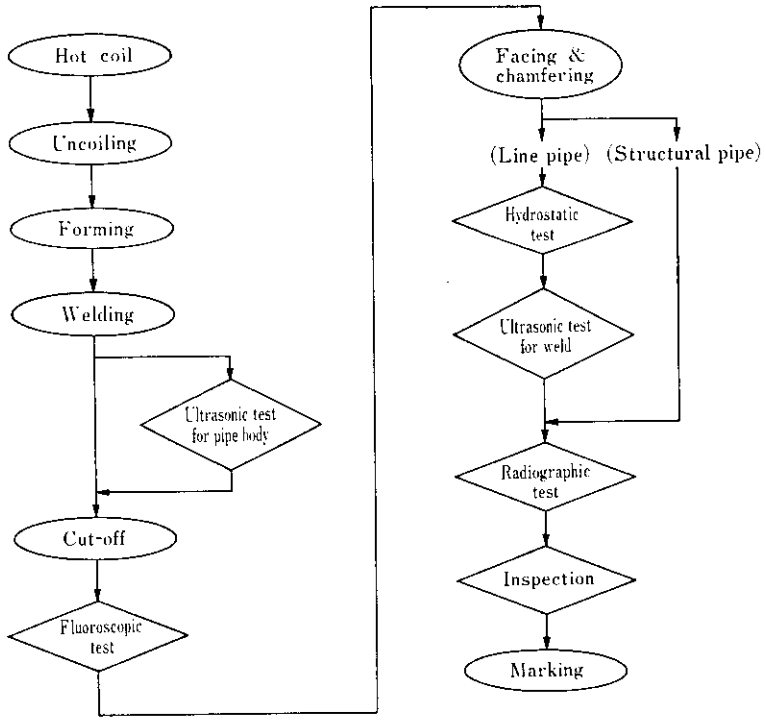


Fig. 16 Manufacturing process for spiral weld pipe

6.2.3 Automatic ultrasonic flaw detector for welds

This is the SNUP-O Type Automatic Ultrasonic

Weld seam Pipe

necessary to promote the development of new equip-

are executed. Then the trainees are subjected to

be

be