

FIG. 1

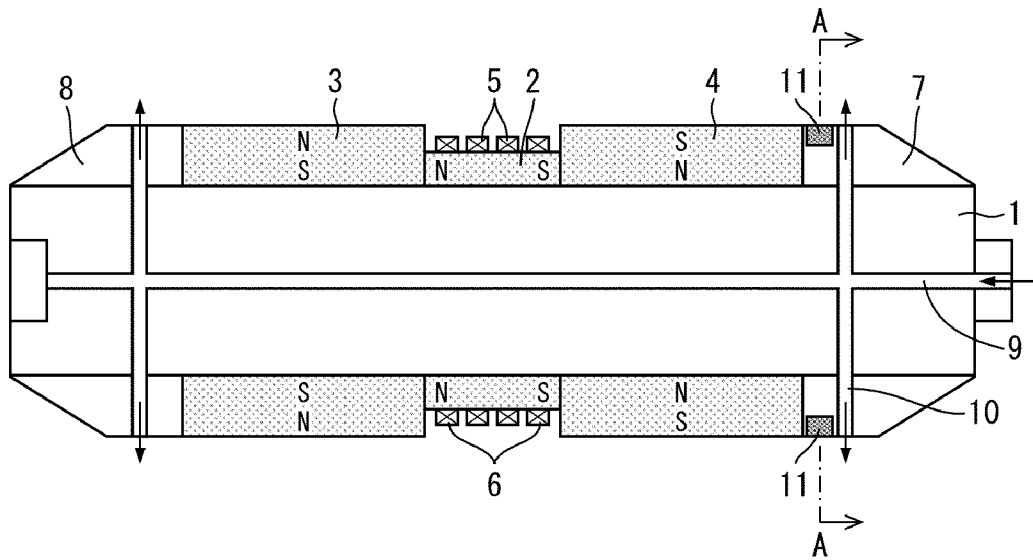


FIG. 2

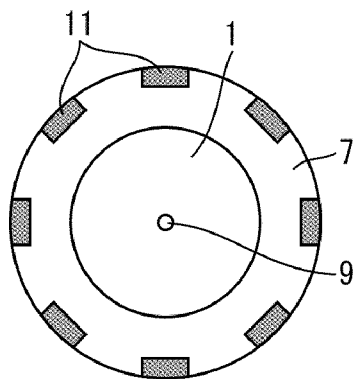


FIG. 3

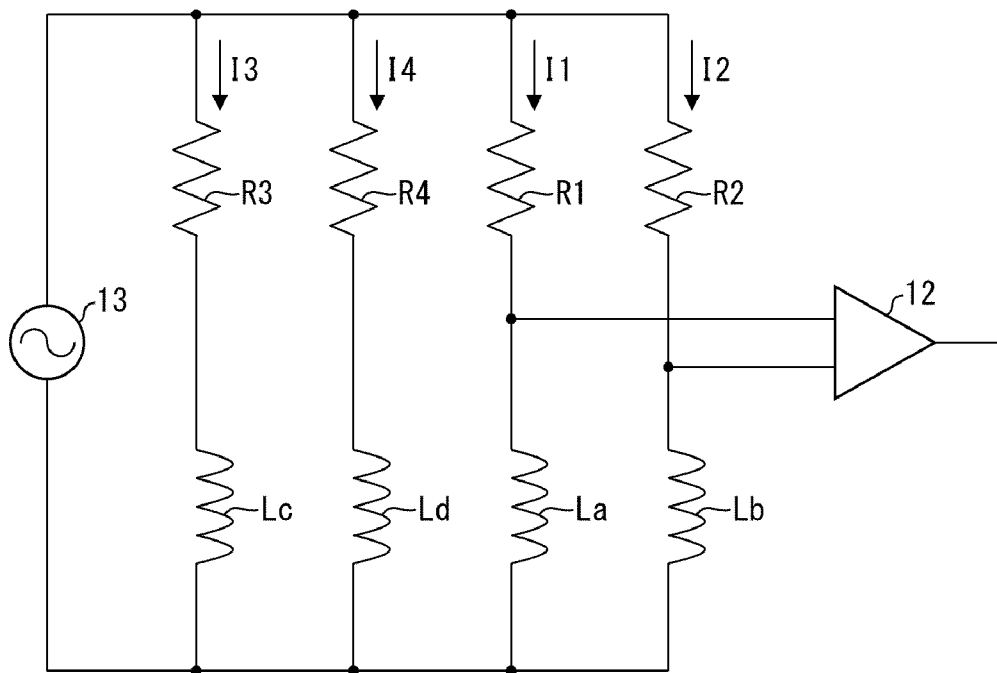


FIG. 4

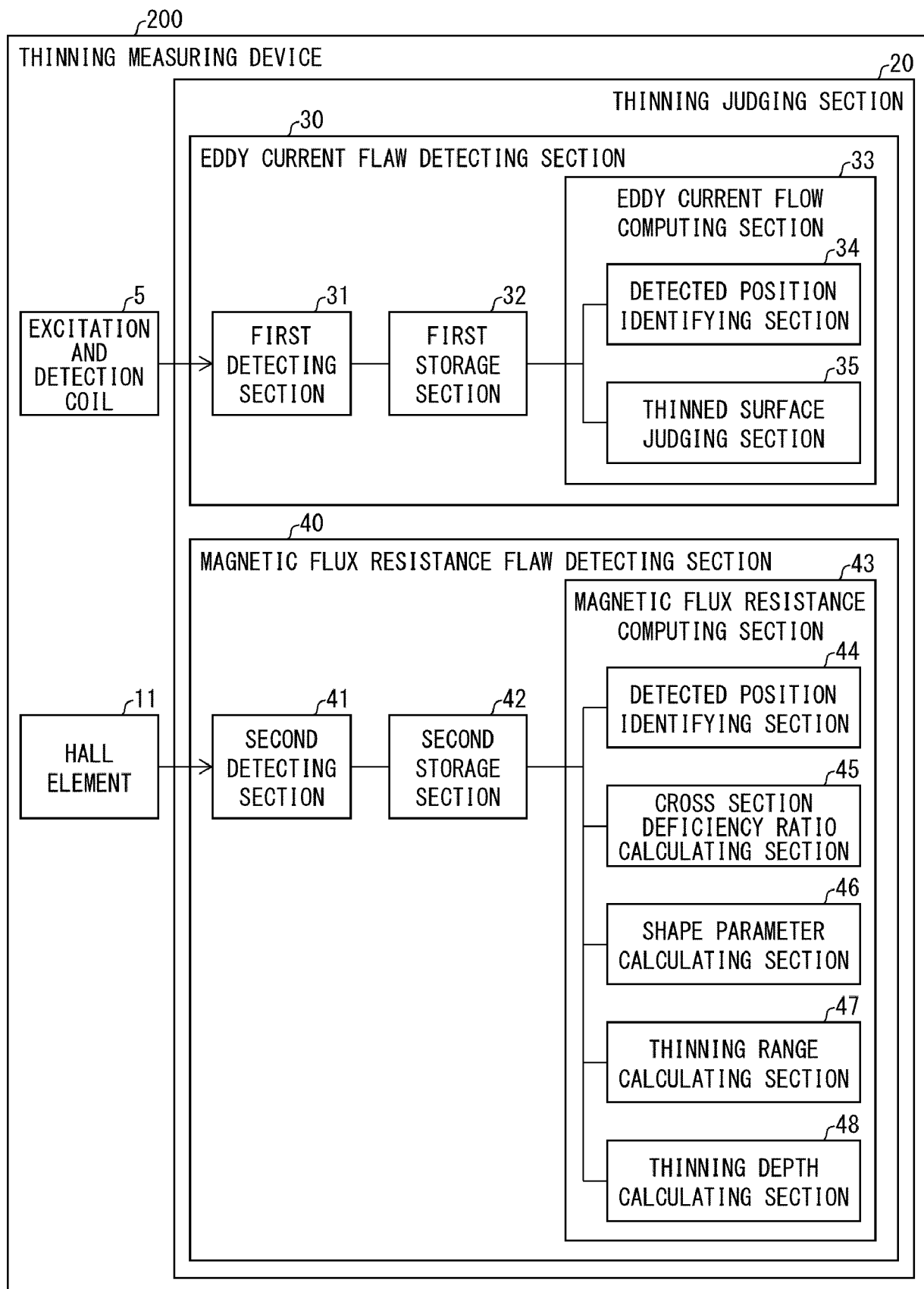


FIG. 5

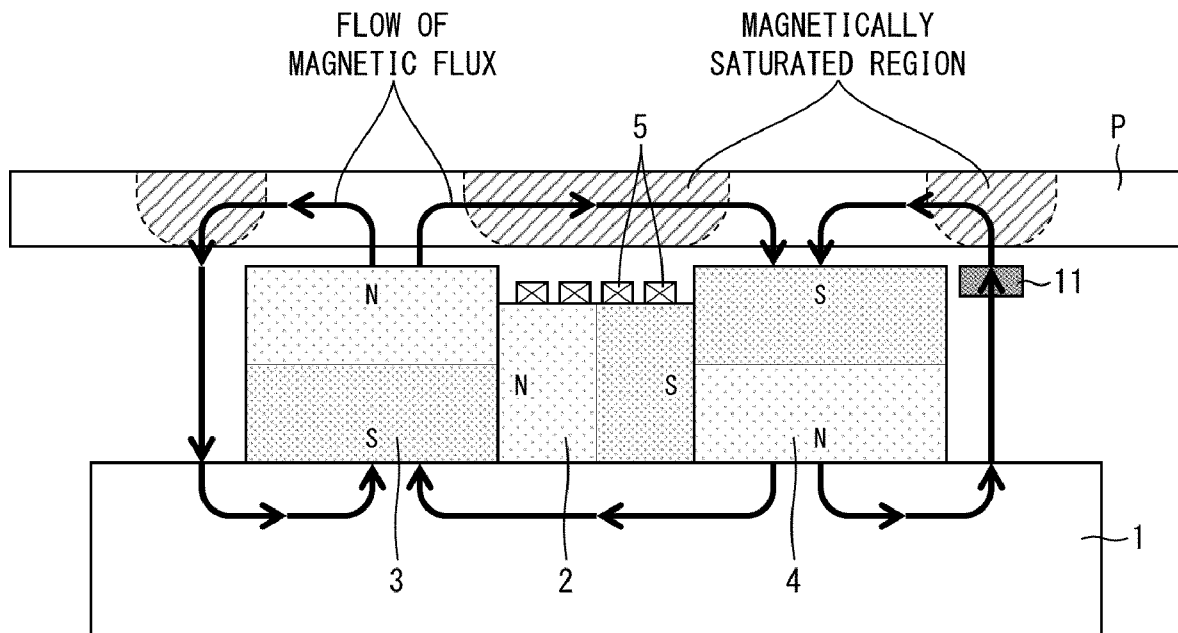


FIG. 6

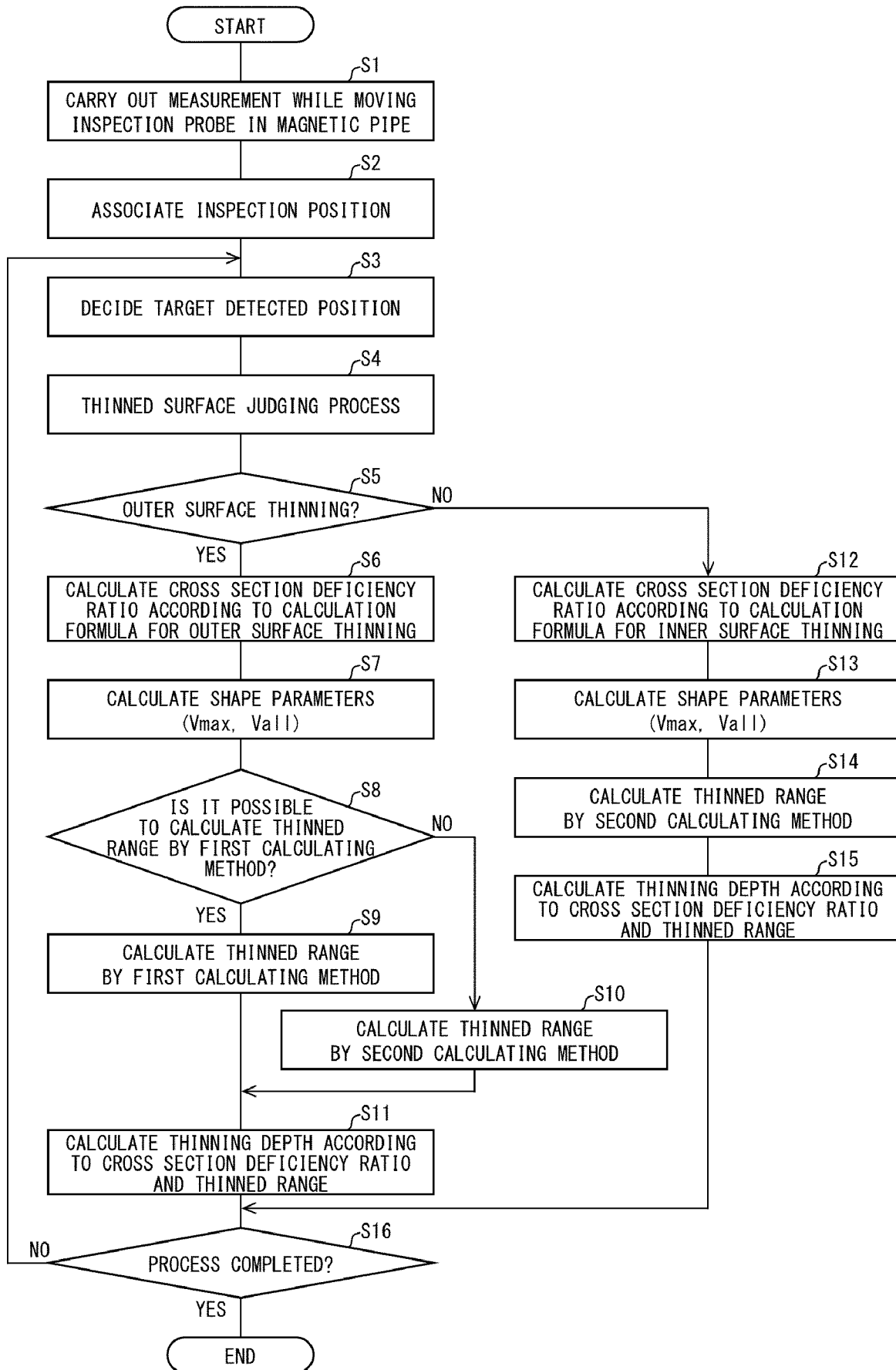
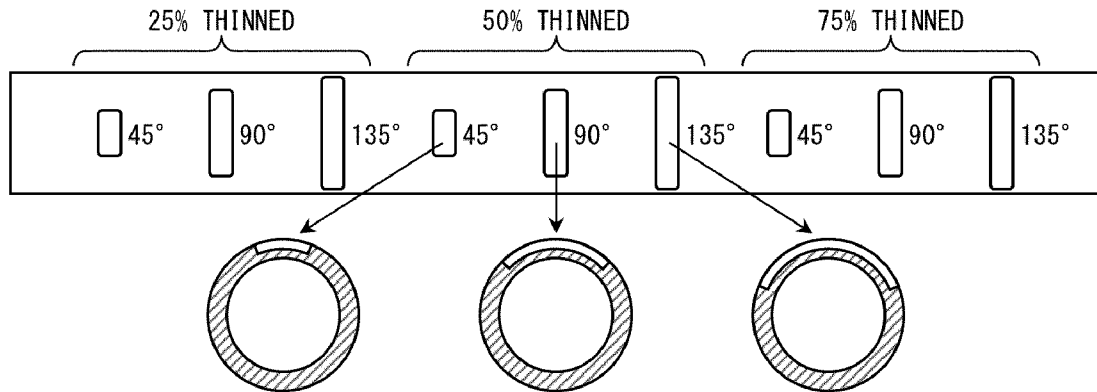


FIG. 7

(a)

TEST PIECE LOCALLY HAVING OUTER SURFACE THINNING ($\phi 25.4 \times 2.0t$)

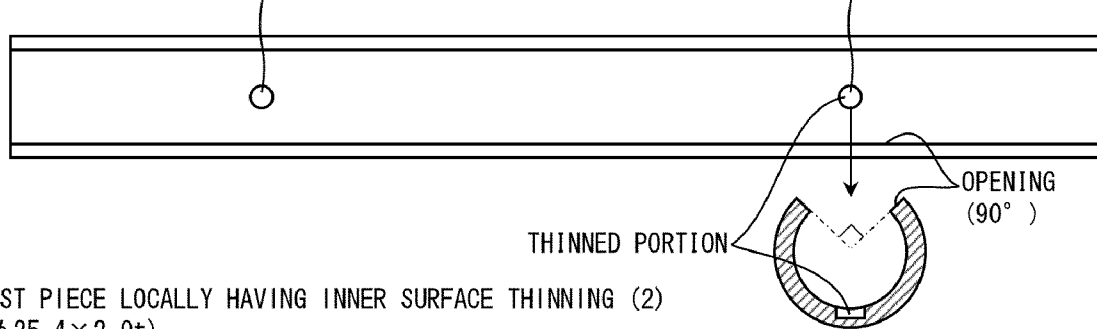


(b)

TEST PIECE LOCALLY HAVING INNER SURFACE THINNING (1) ($\phi 25.4 \times 2.0t$)

$\phi 5$ FLAT-BOTTOMED HOLE 25% THINNED

$\phi 5$ FLAT-BOTTOMED HOLE 50% THINNED



TEST PIECE LOCALLY HAVING INNER SURFACE THINNING (2)

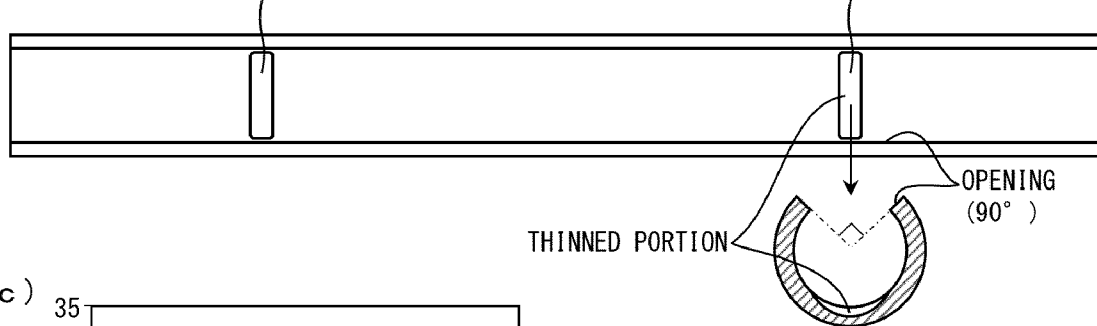
($\phi 25.4 \times 2.0t$)

ARC-SHAPED THINNING (WIDTH $5 \times 90^\circ$)

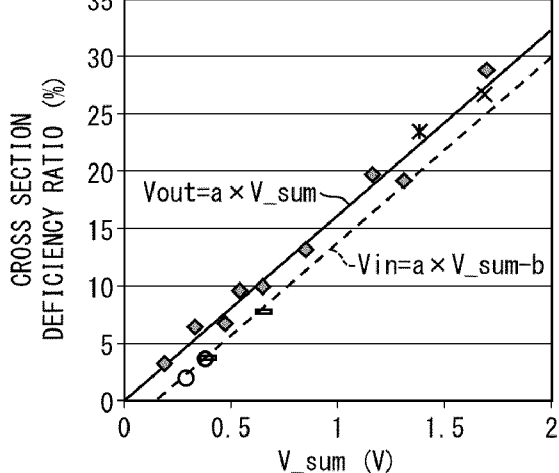
25% THINNED

ARC-SHAPED THINNING (WIDTH $5 \times 90^\circ$)

50% THINNED



(c)



- ◆ OUTER SURFACE LOCAL THINNING
- ✕ OUTER SURFACE CIRCUMFERENTIAL GROOVE THINNING
- ✕ INNER SURFACE CIRCUMFERENTIAL GROOVE THINNING
- INNER SURFACE FLAT-BOTTOMED HOLE THINNING ($\phi 5$)
- INNER SURFACE ARC-SHAPED THINNING (THINNED RANGE 90°)
- CROSS SECTION DEFICIENCY RATIO EVALUATION LINE (OUTER SURFACE THINNING)
- - - CROSS SECTION DEFICIENCY RATIO EVALUATION LINE (INNER SURFACE THINNING)

FIG. 8

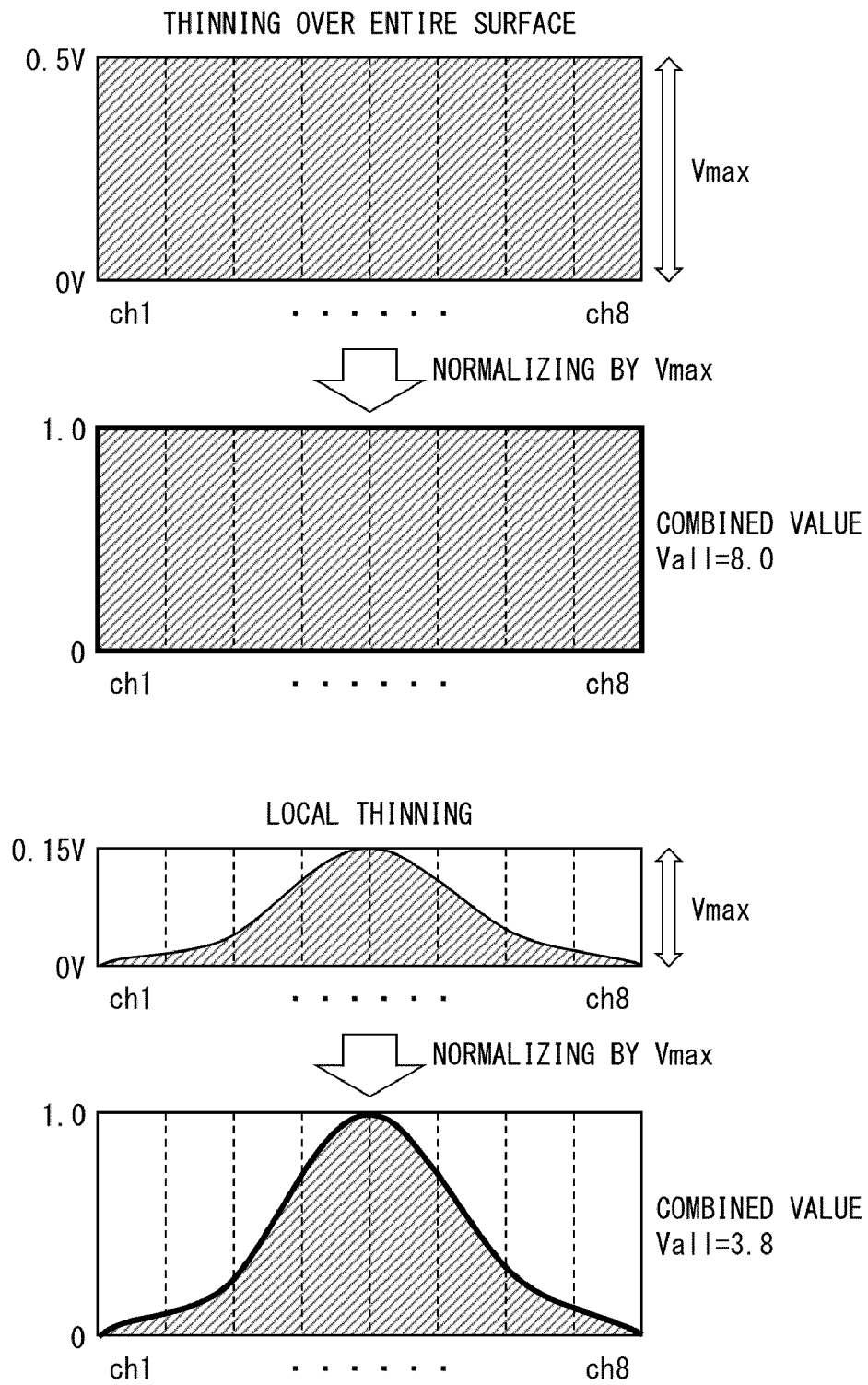


FIG. 9

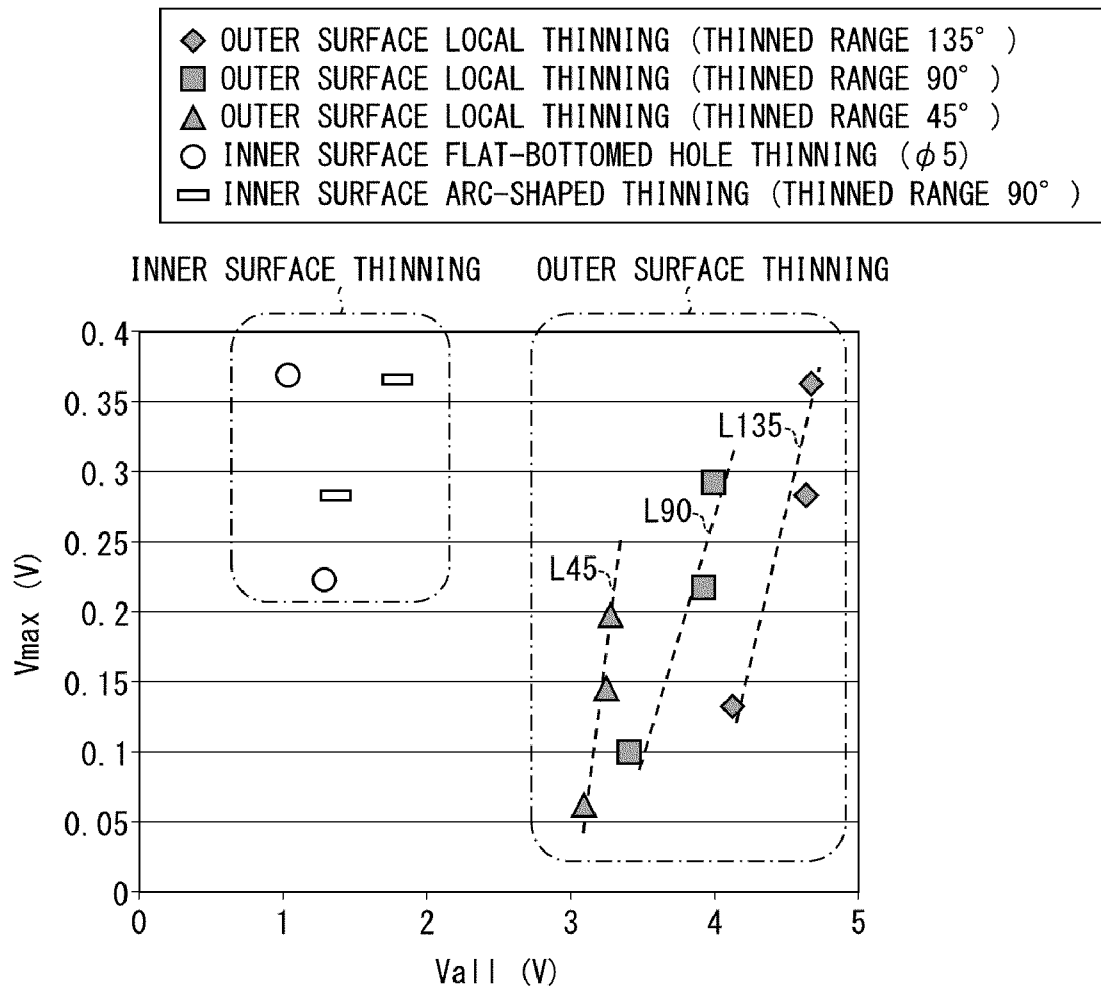


FIG. 10

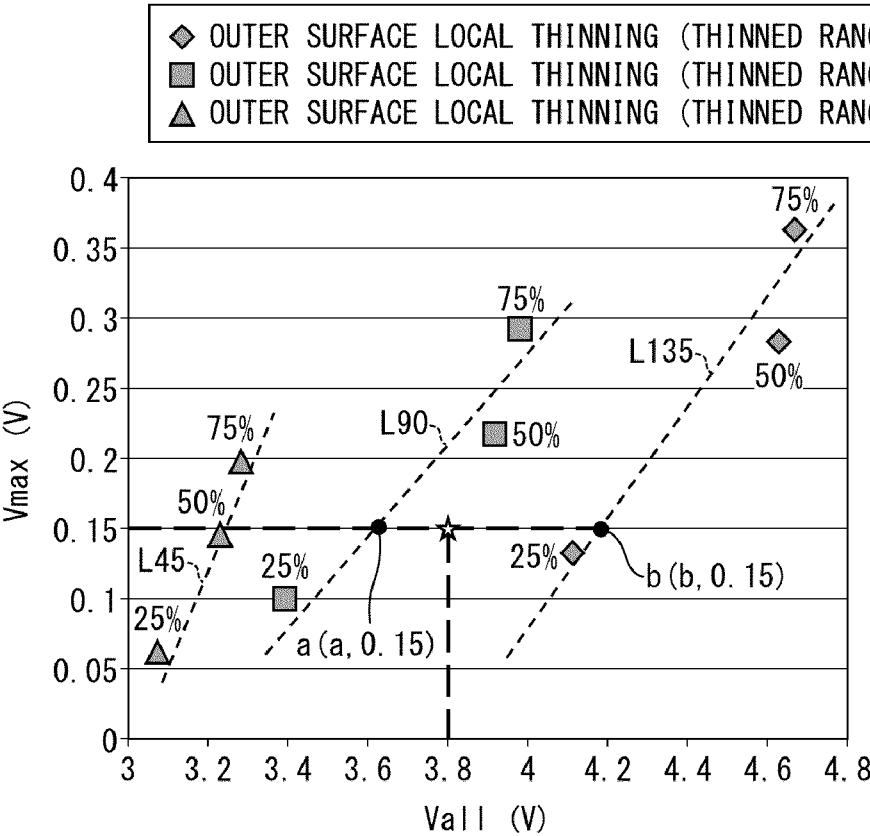


FIG. 11

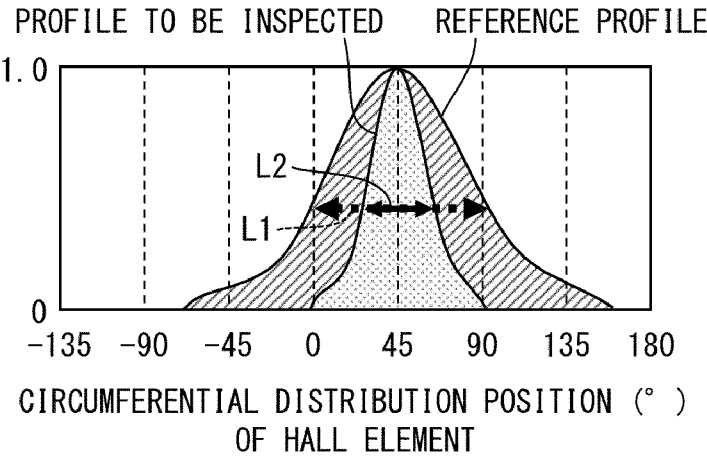


FIG. 12

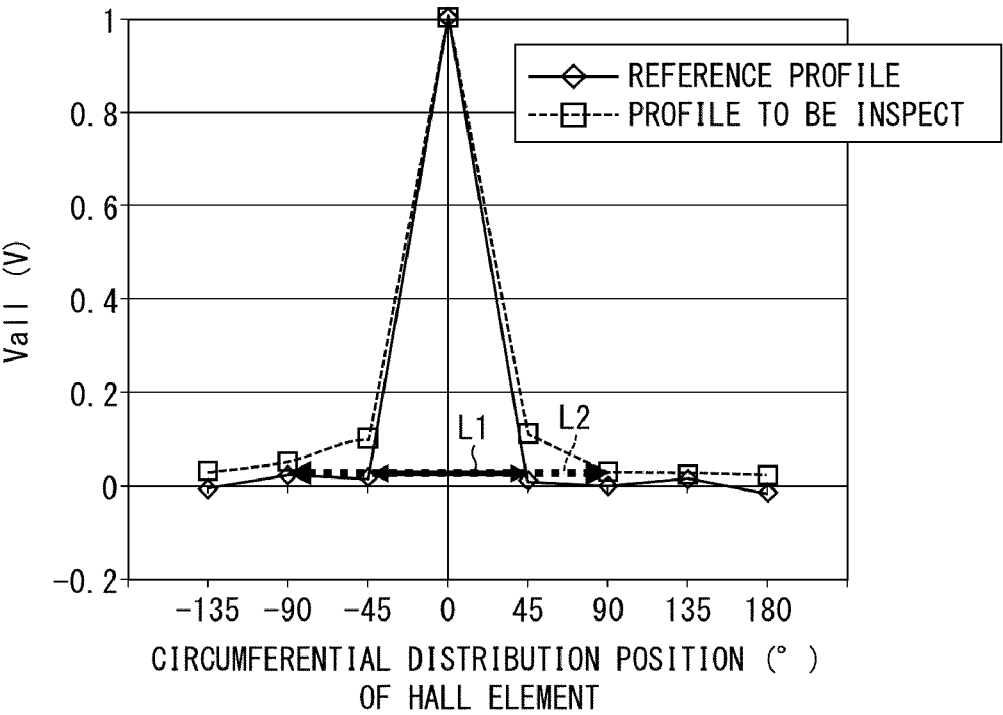


FIG. 13

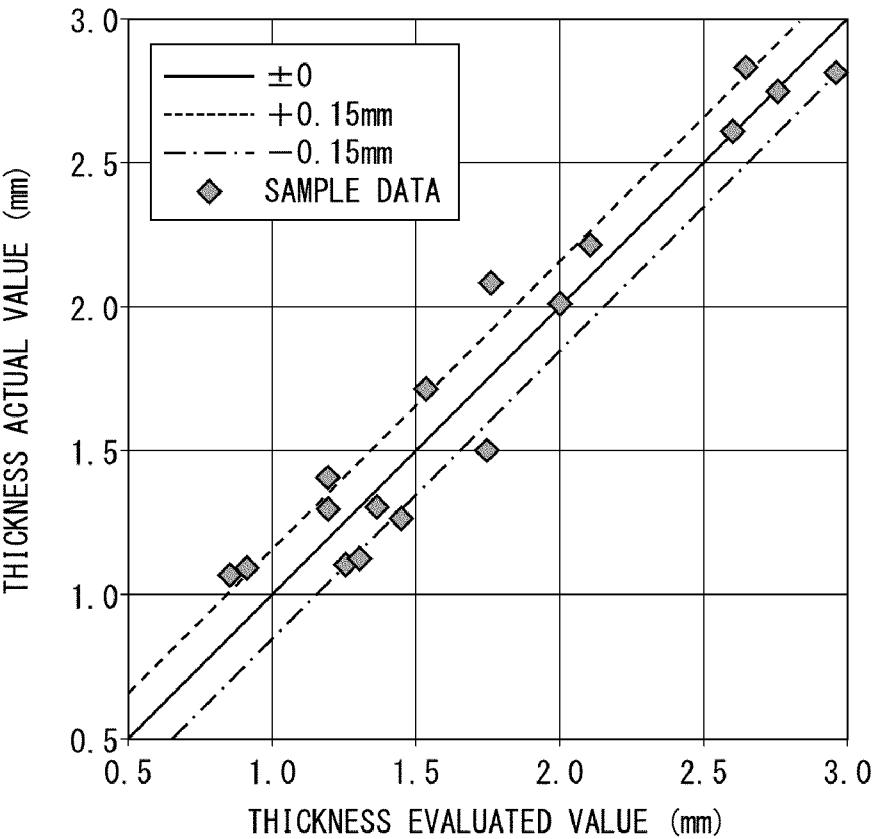


FIG. 14

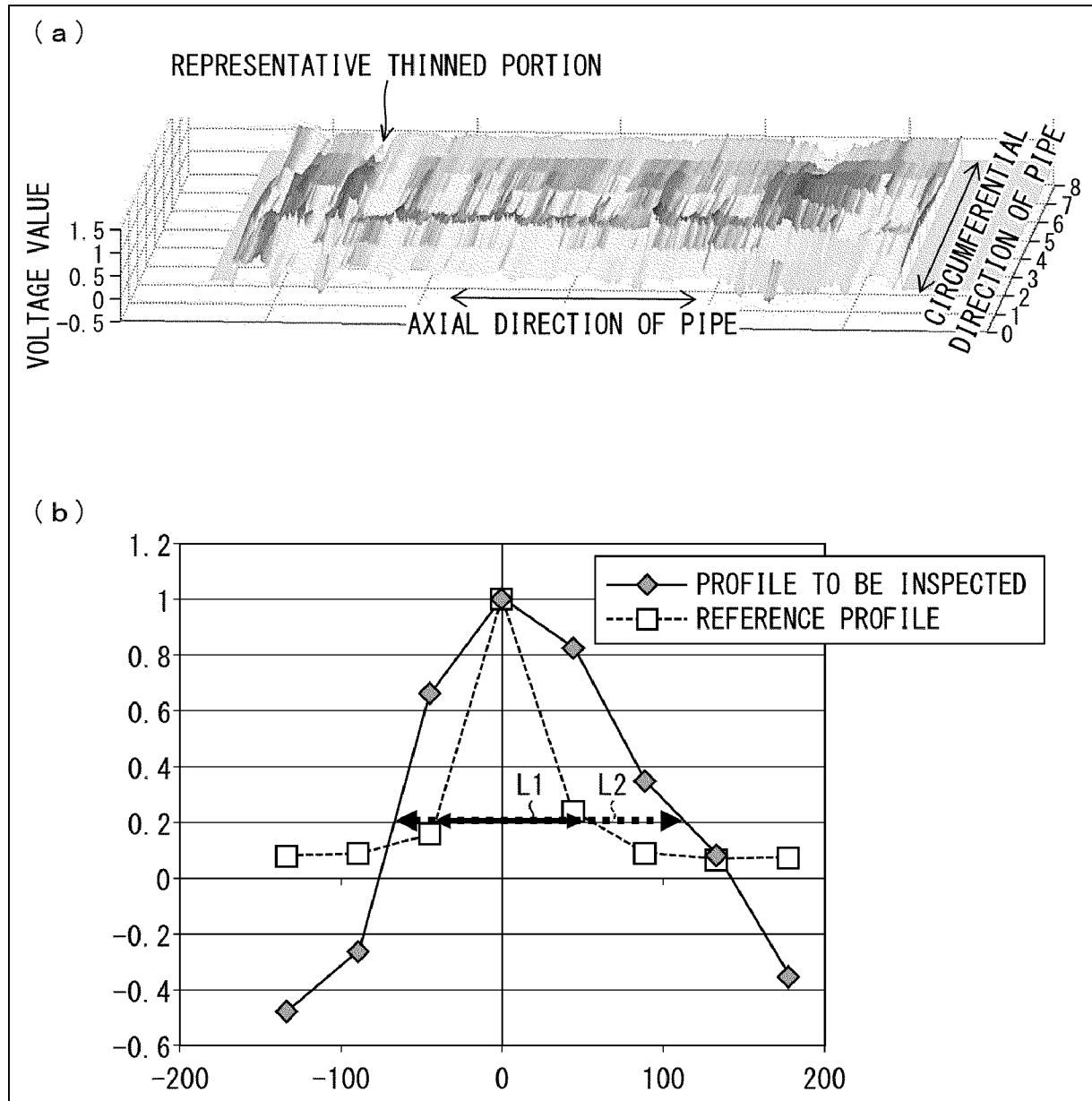


FIG. 15

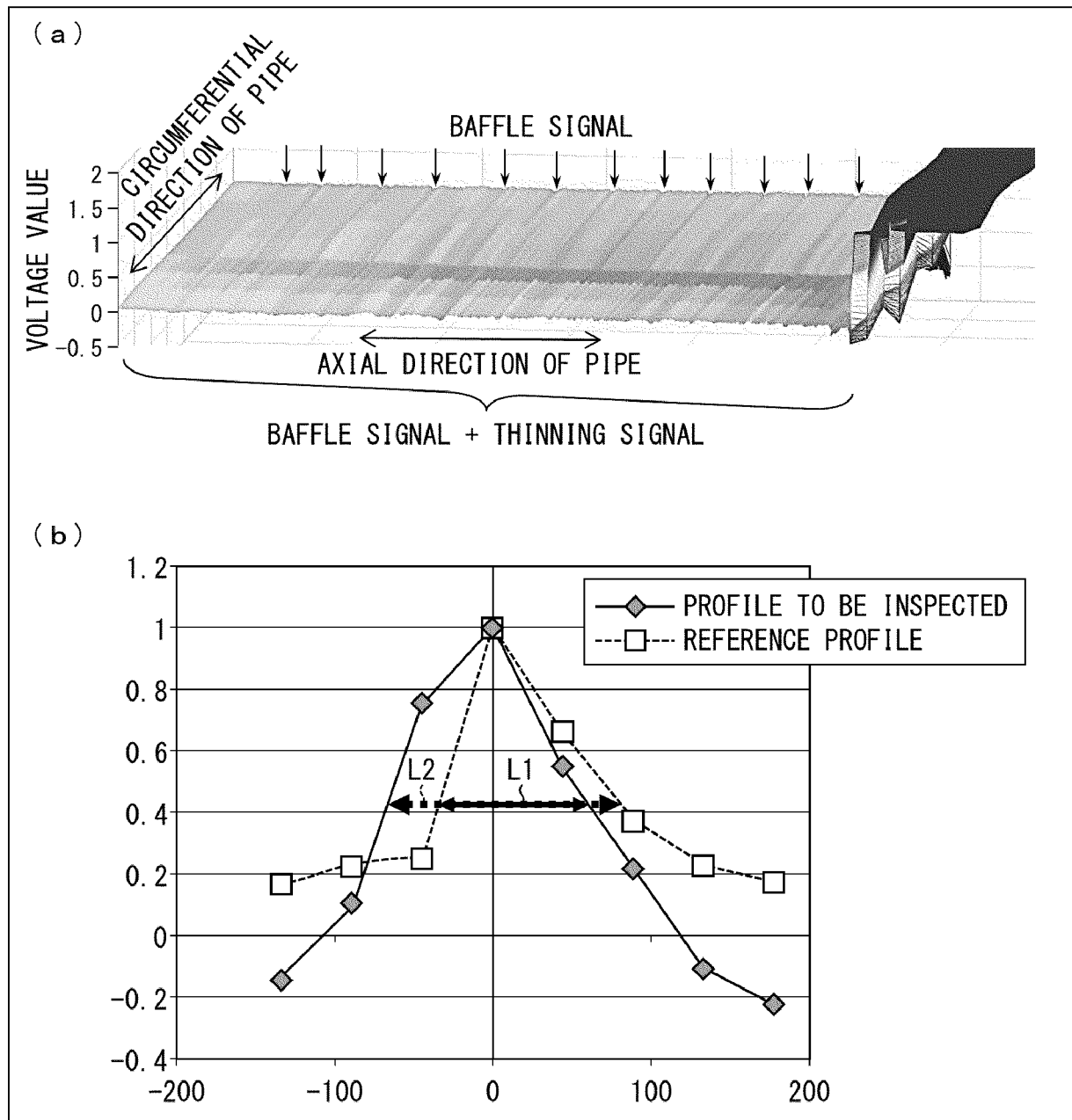


FIG. 16

