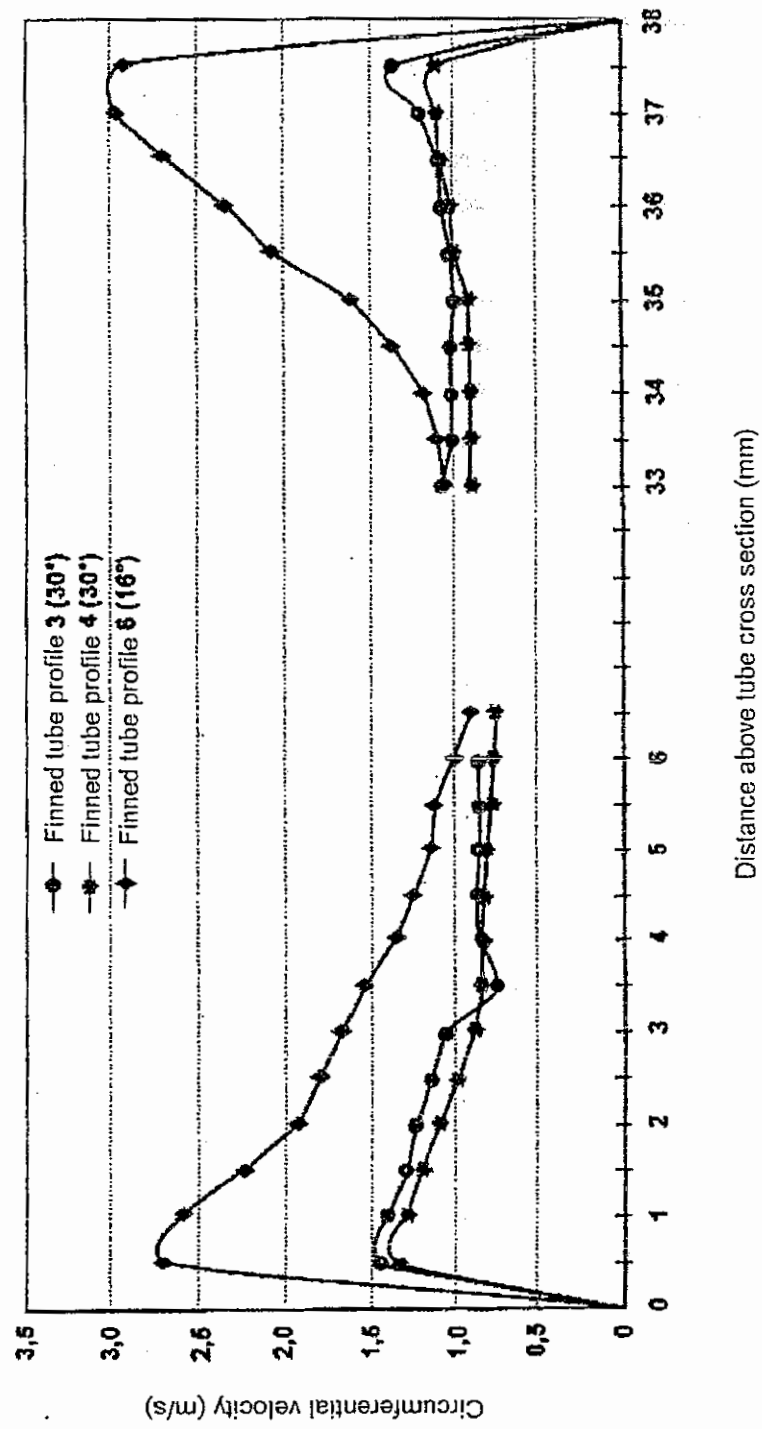
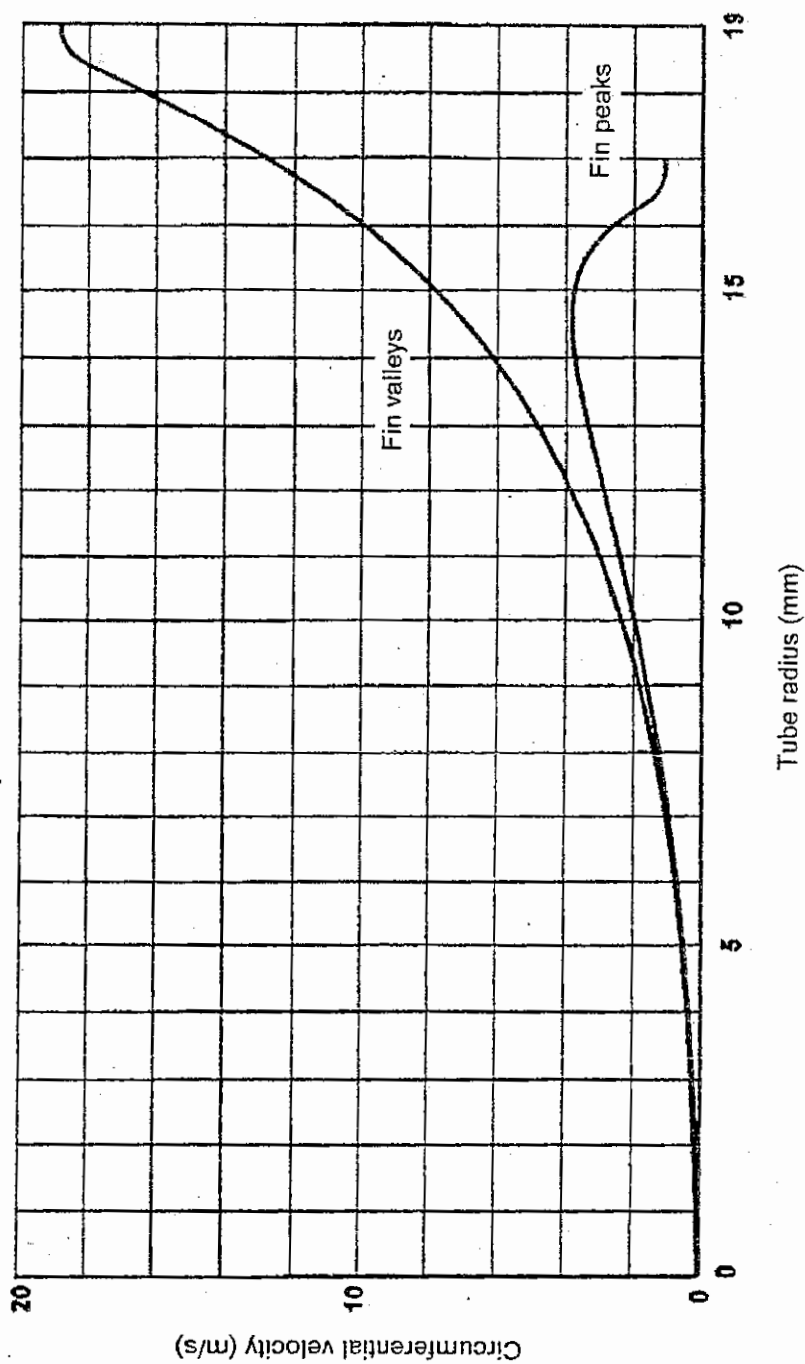




Circumferential velocities in profiles with differing inclination with respect to the tube axis

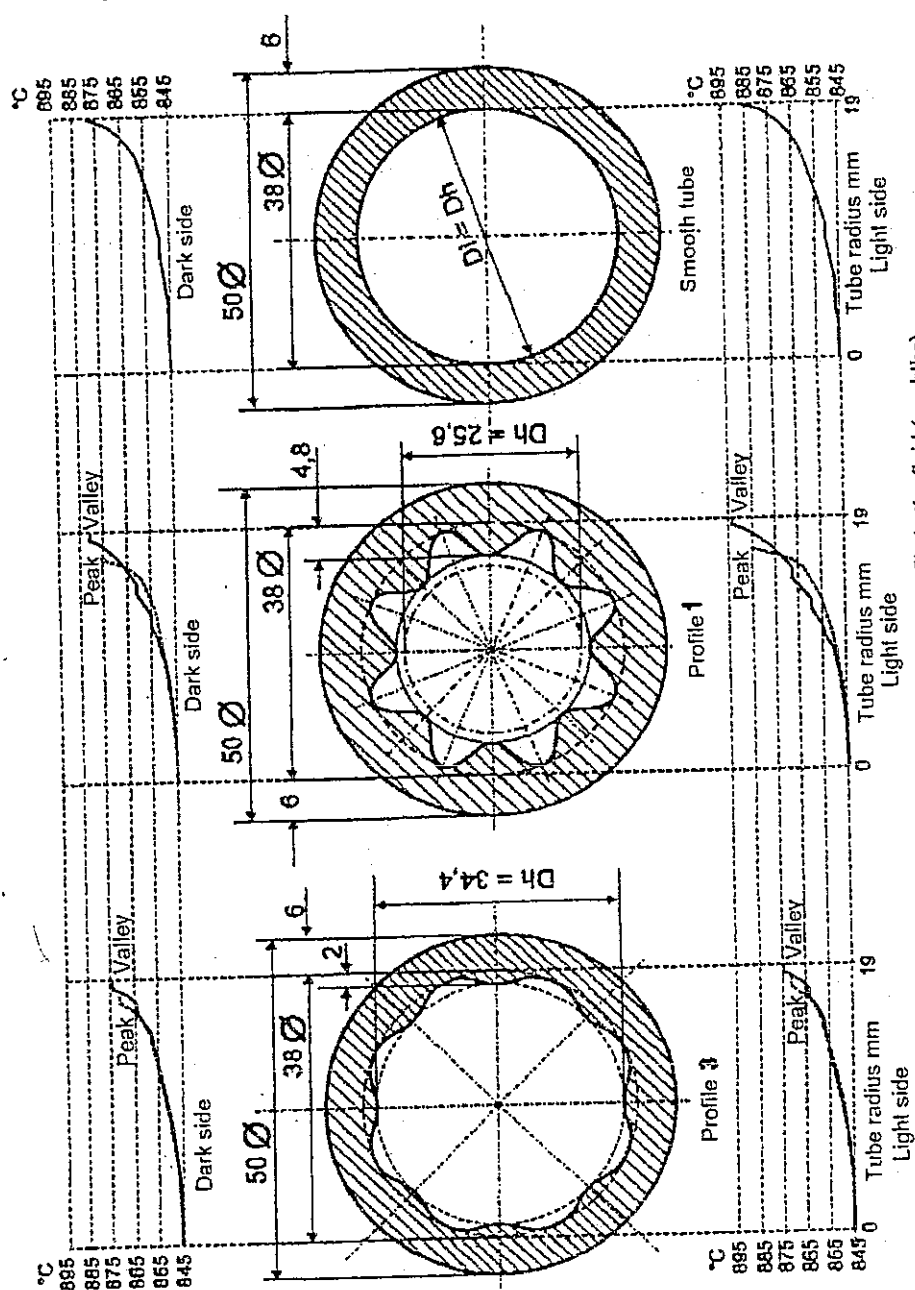
Fig. 1



Distribution of the circumferential velocities in profile 3 with 30° pitch over the radius of the profiled tube

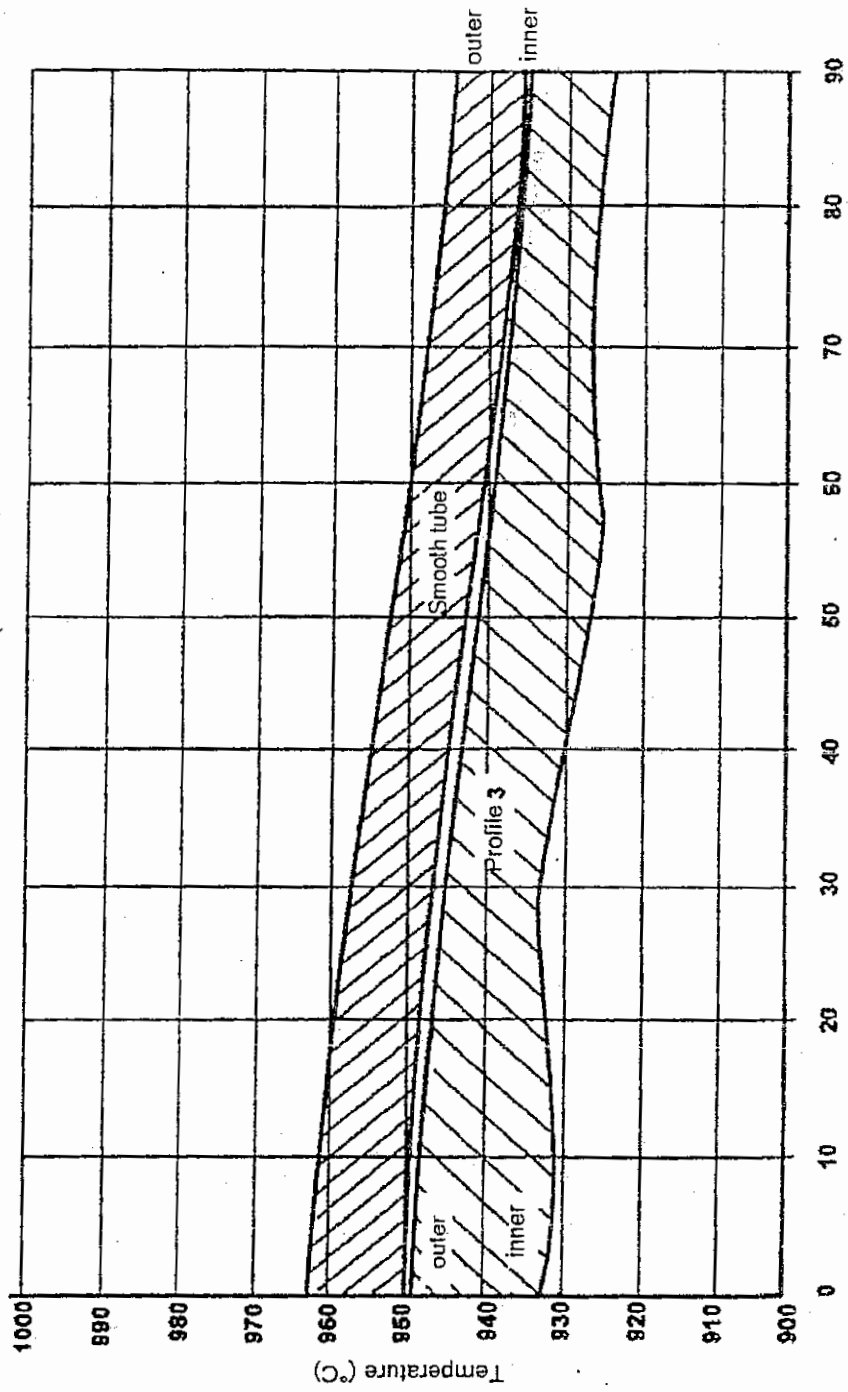
Fig. 2

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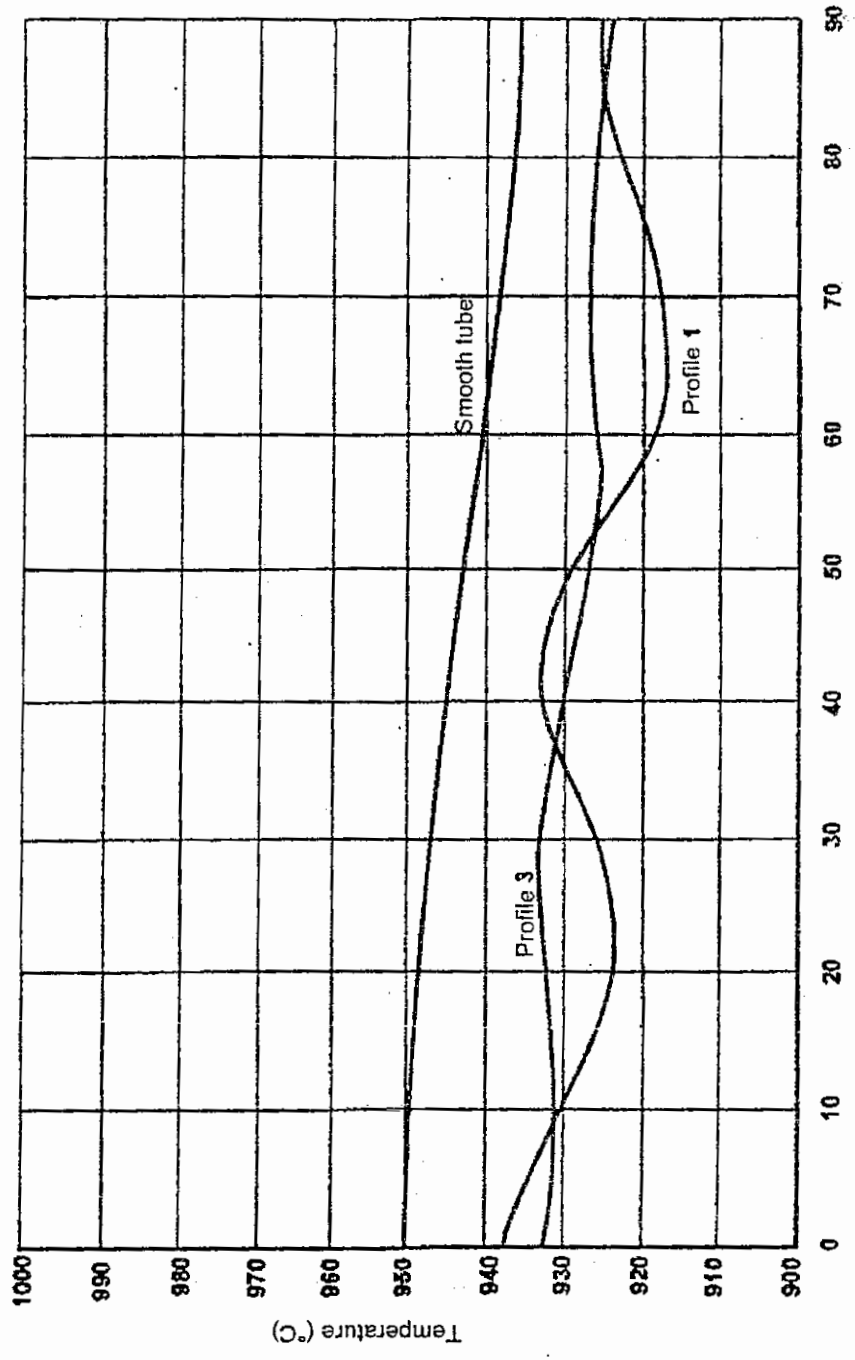
Profile shapes with temperature profile in the fluid (naphtha)
at 9950 mm plotted over a radius in the tube (peak = profile
peak, valley = profile valley)

Fig. 3



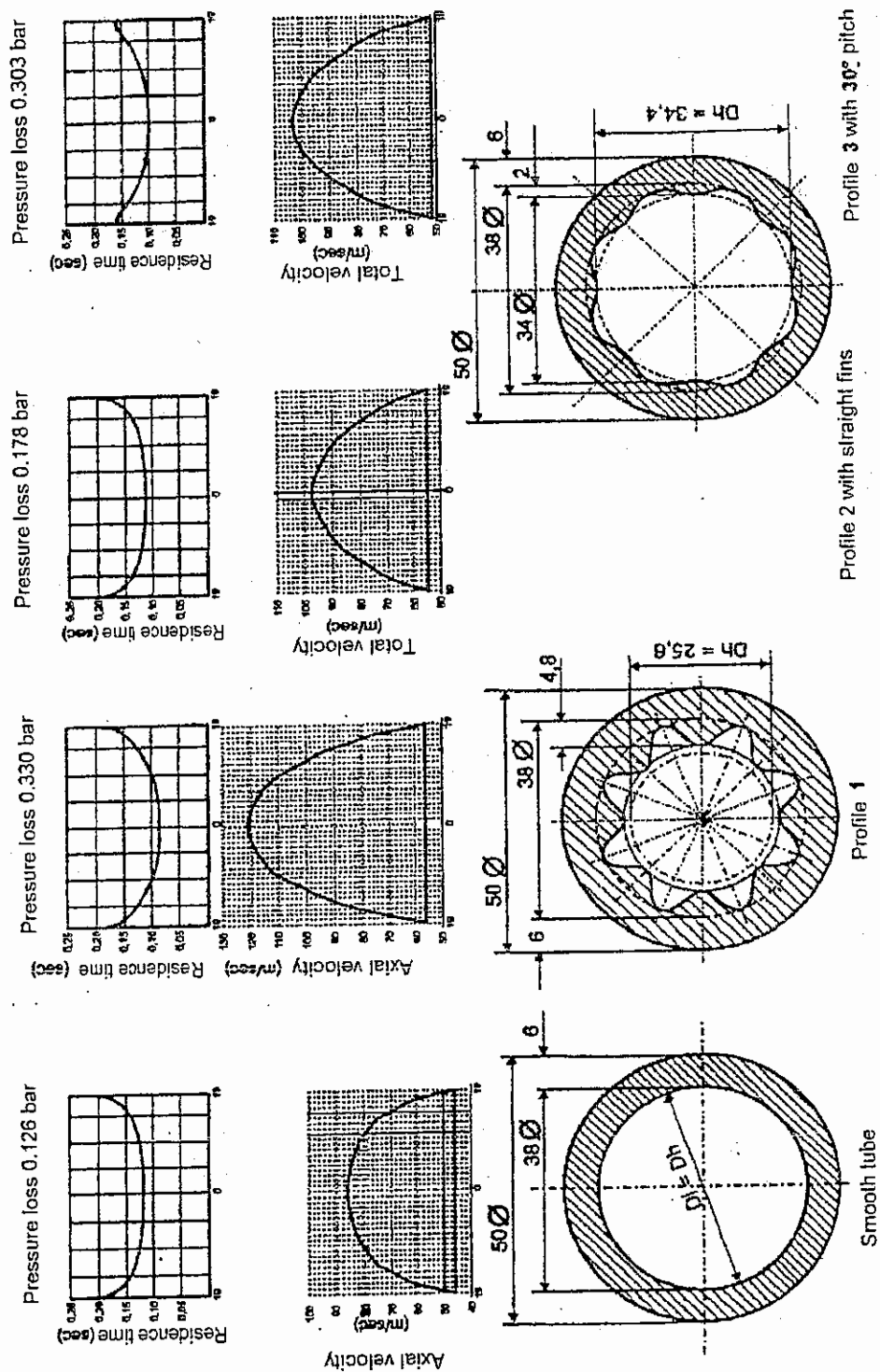
Tube circumference from the light side to the dark side (°)
Comparison of the tube metal temperatures

Fig. 4



Tube circumference from the light side to the dark side (°)
Temperature distribution on the tube inner wall at 9950 mm

Fig. 5



Comparison of the flow velocities, the residence times and the pressure losses for the same mass throughput after 9950 mm heated tube length

Fig. 7