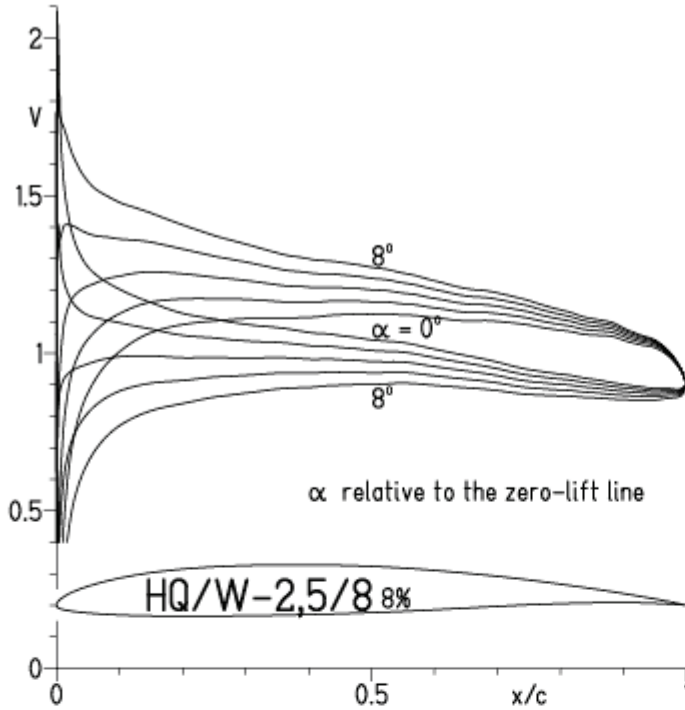


HQ/W-2,5/8, N=11

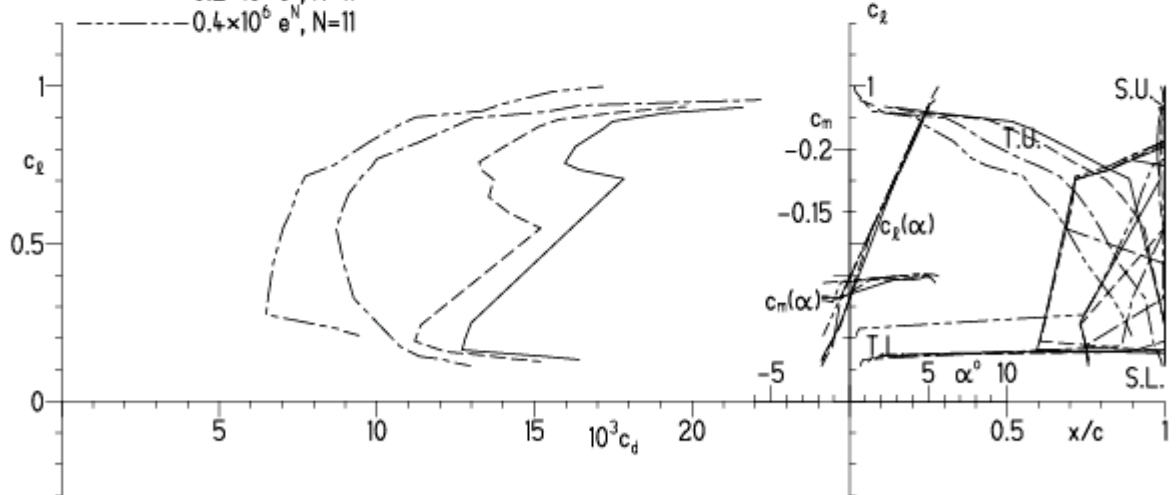
EPPLER 2005 V. 8.5.07 RUN 9.3.11 15:44



EPPLER

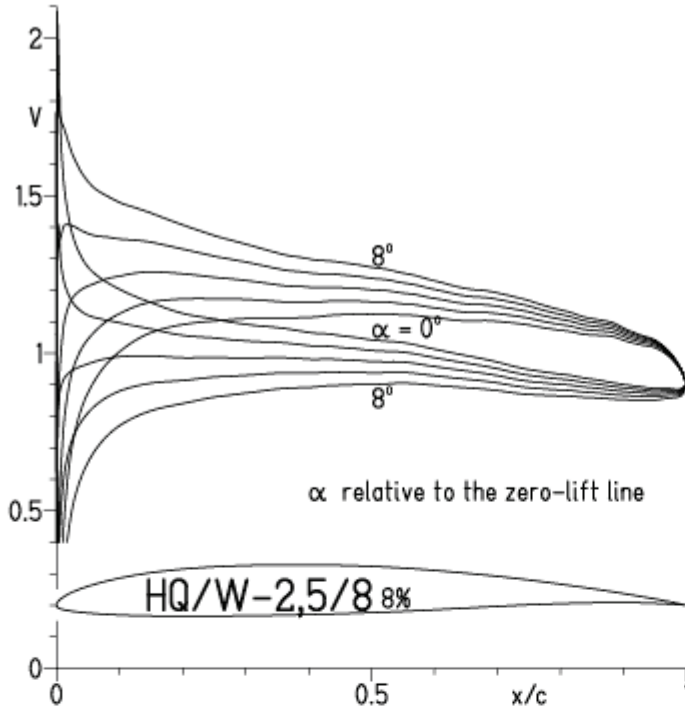
HQ/W-2,5/8 8%

- $Re = 75\,000 e^N, N=11$
- - - $0.1 \times 10^6 e^N, N=11$
- · - $0.2 \times 10^6 e^N, N=11$
- · - · $0.4 \times 10^6 e^N, N=11$



HQ/W-2,5/8, N=9

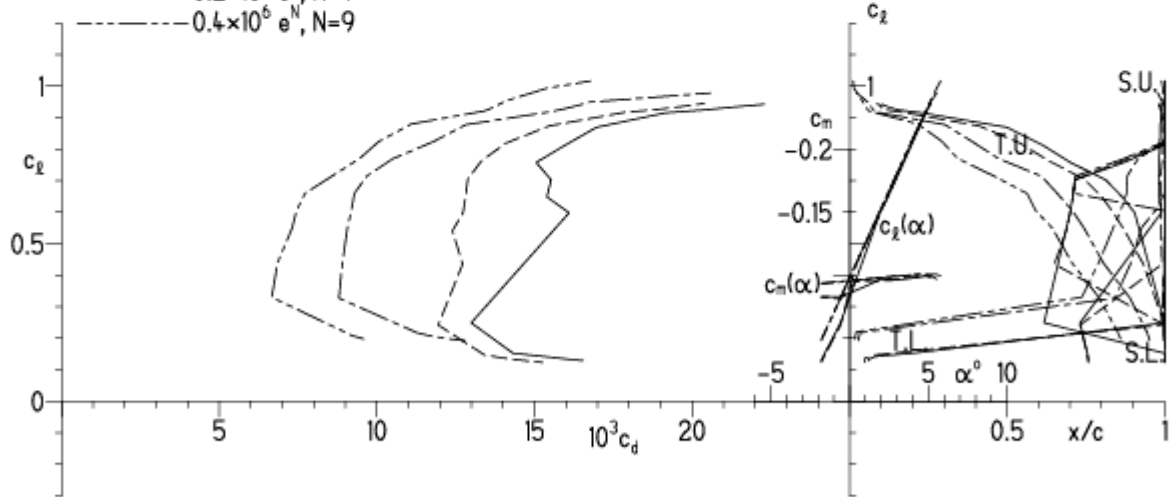
EPPLER 2005 V. 8.5.07 RUN 9.3.11 16:21



EPPLER 2005 V. 8.5.07 RUN 9.3

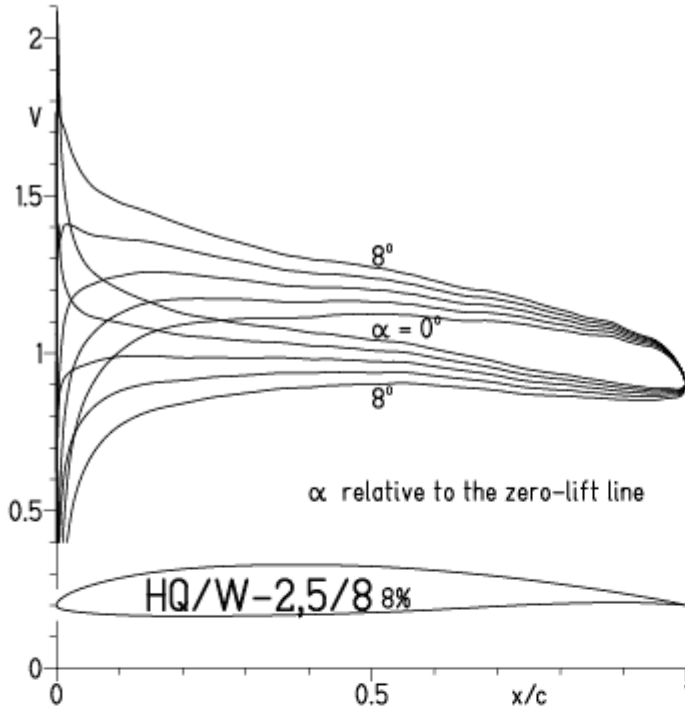
HQ/W-2,5/8 8%

- $Re = 75\,000 e^N, N=9$
- - - $0.1 \times 10^6 e^N, N=9$
- · - $0.2 \times 10^6 e^N, N=9$
- - - $0.4 \times 10^6 e^N, N=9$



HQ/W-2,25/8, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

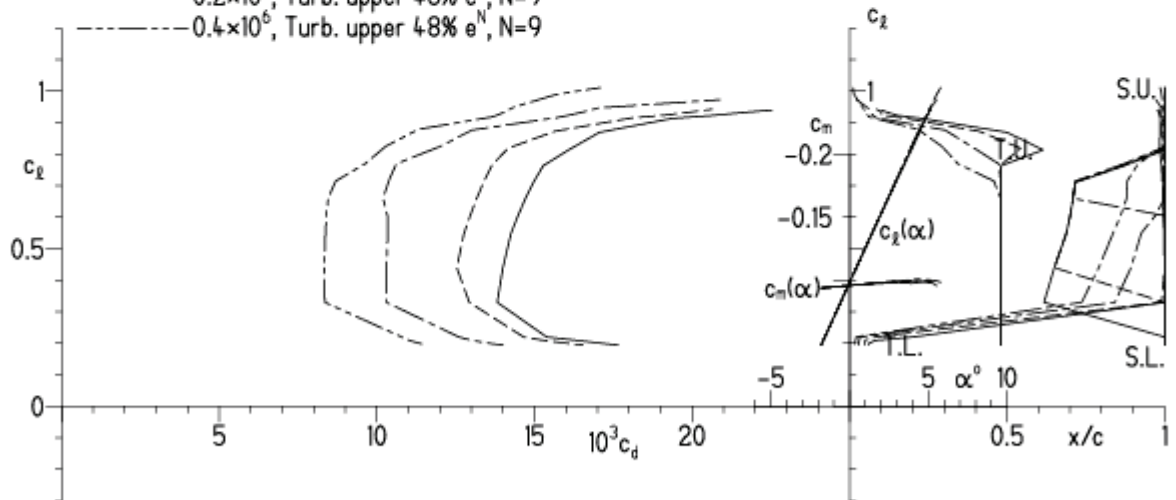
EPPLER 2005 V. 8.5.07 RUN 9.3.11 16:23



EPPLER 2005 V. 8.5.07 RUN 9.3.11 16:23

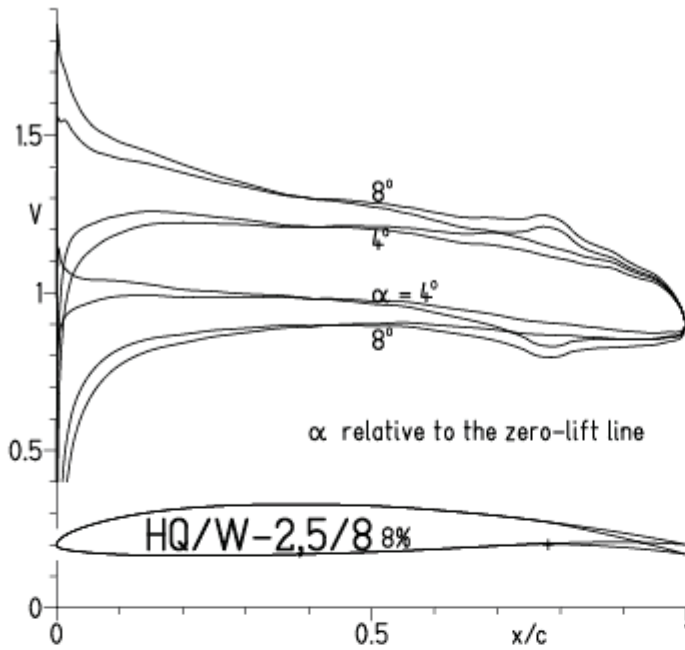
HQ/W-2,25/8 8%

- $Re = 75\ 000$, Turb. upper 48% e^N , $N=9$
- - - - - 0.1×10^6 , Turb. upper 48% e^N , $N=9$
- · - · - 0.2×10^6 , Turb. upper 48% e^N , $N=9$
- - - - - 0.4×10^6 , Turb. upper 48% e^N , $N=9$



HQ/W-2,5/8, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 9.3.11 16:52

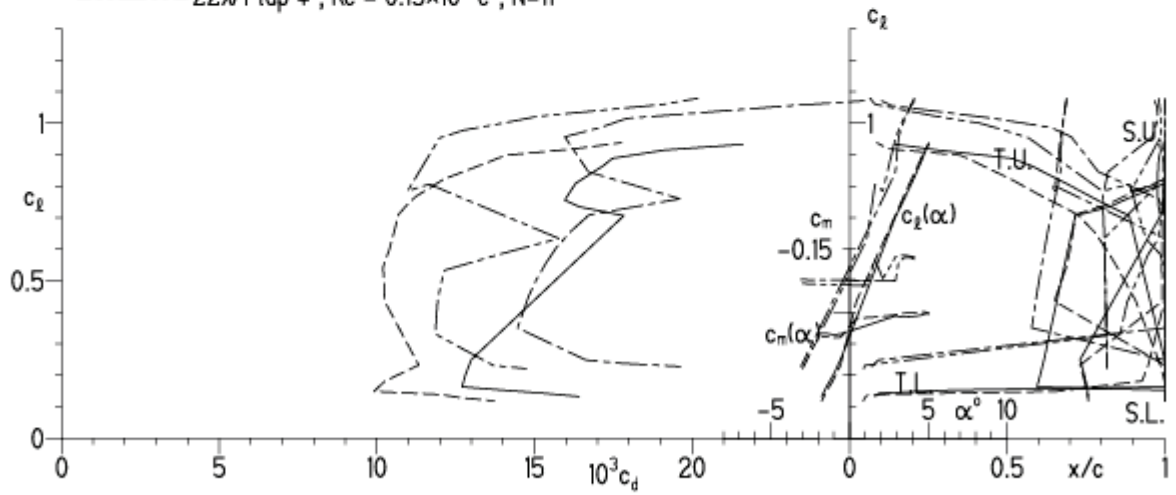


EPPLER 2005 V. 8.5.07 RUN 9.3.11 16:52

HQ/W-2,5/8 8%

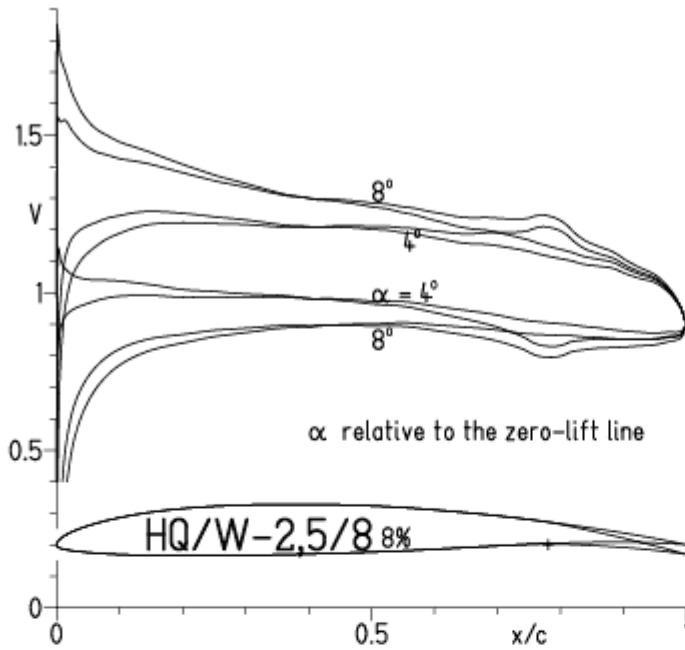
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/8, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 9.3.11 17:00

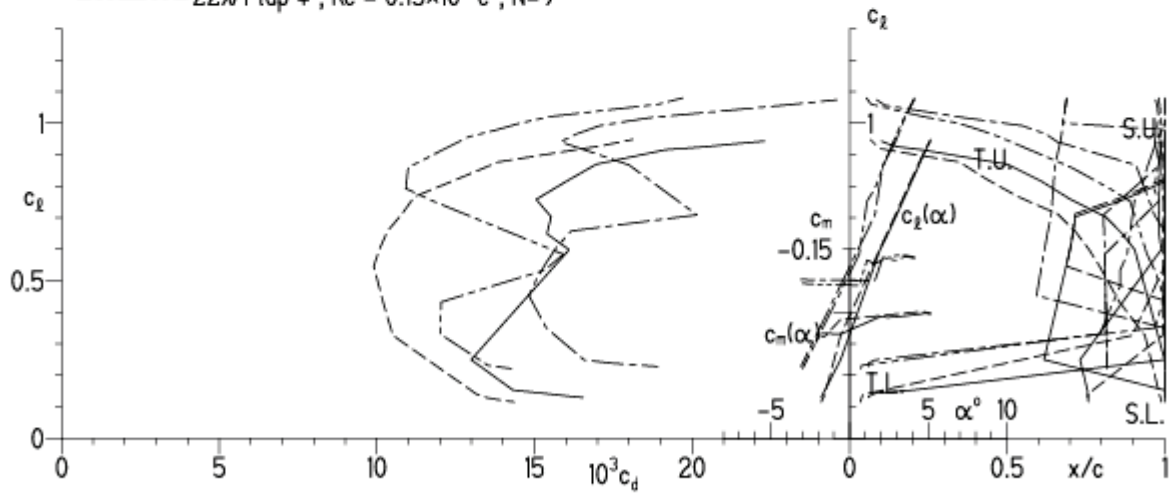


EPPLER 2005 V. 8.5.07 RUN 9.3.11 17:00

HQ/W-2,5/8 8%

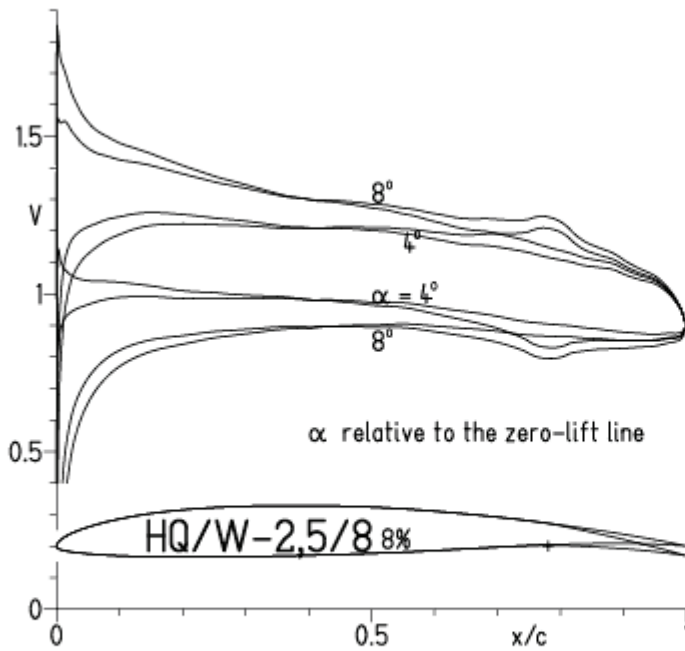
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,25/8, N=9 mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 9.3.11 17:02

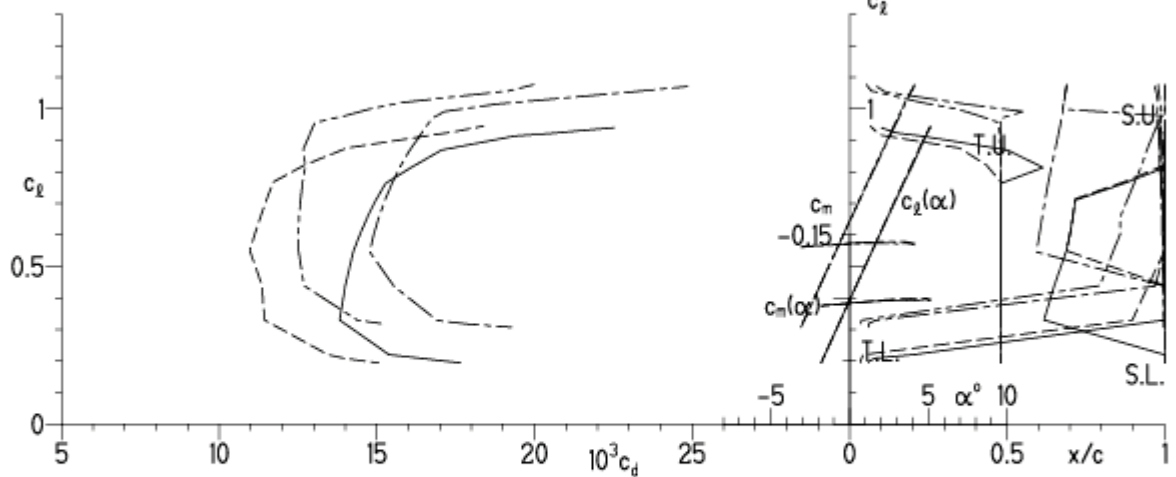


EPPLER 2005 V. 8.5.07 RUN 9.3.11 17:02

HQ/W-2,5/8 8%

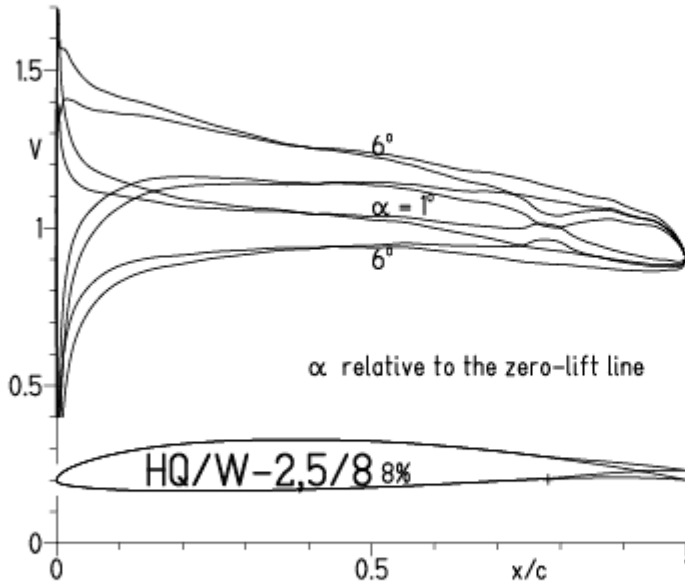
- Re = 75 000, Turb. upper 48% e^N, N=9
- - - 0.15x10⁶, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 75 000, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 0.15x10⁶, Turb. upper 48% e^N, N=9

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

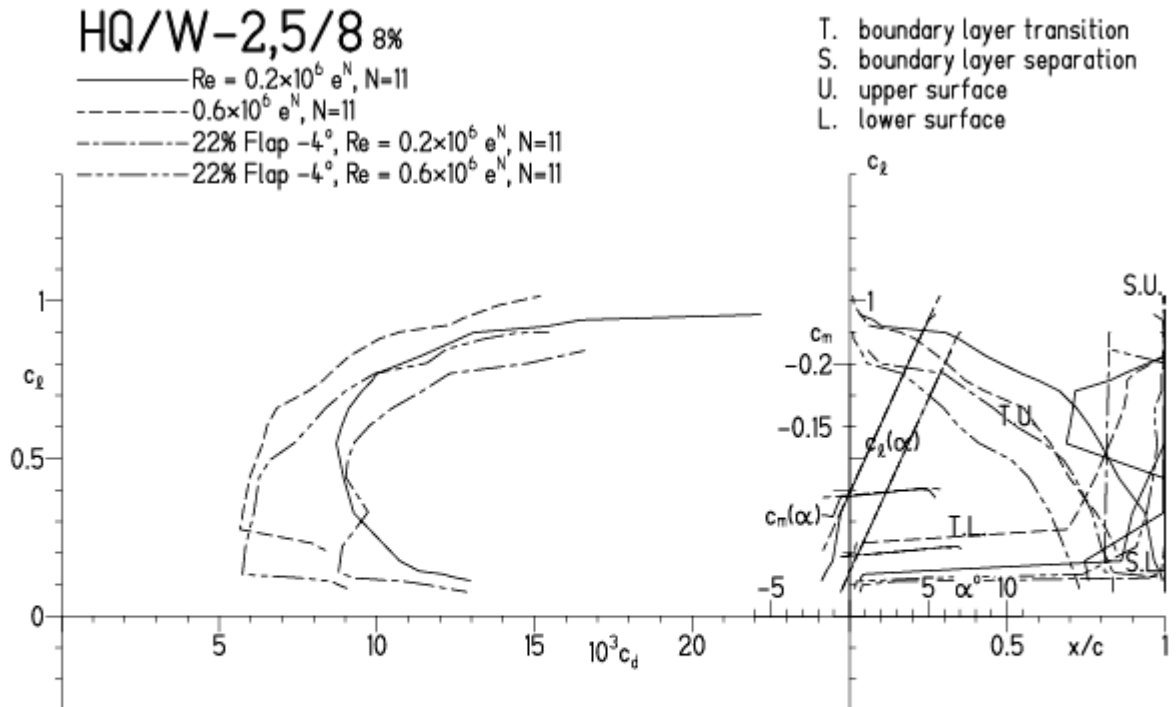


HQ/W-2,5/8, N=11 mit -4° Wölbklappenausschlag
 (F3J-Modelle mit 30 g/dm^2 erreichen damit nur ca. 20 - 25 m/s Höchstgeschwindigkeit)

EPPLER 2005 V. 8.5.07 RUN 9.3.11 17:29

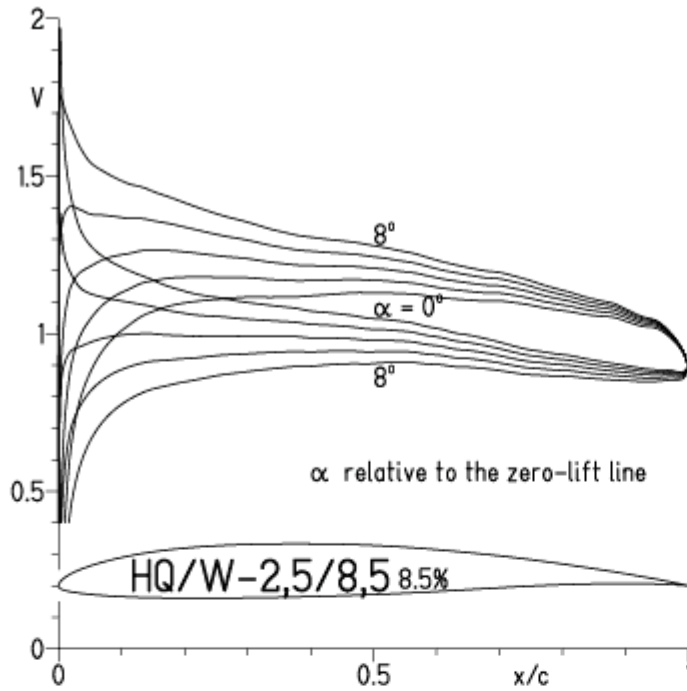


EPPLER 2005 V. 8.5.07 RUN 9.3.11 17:2



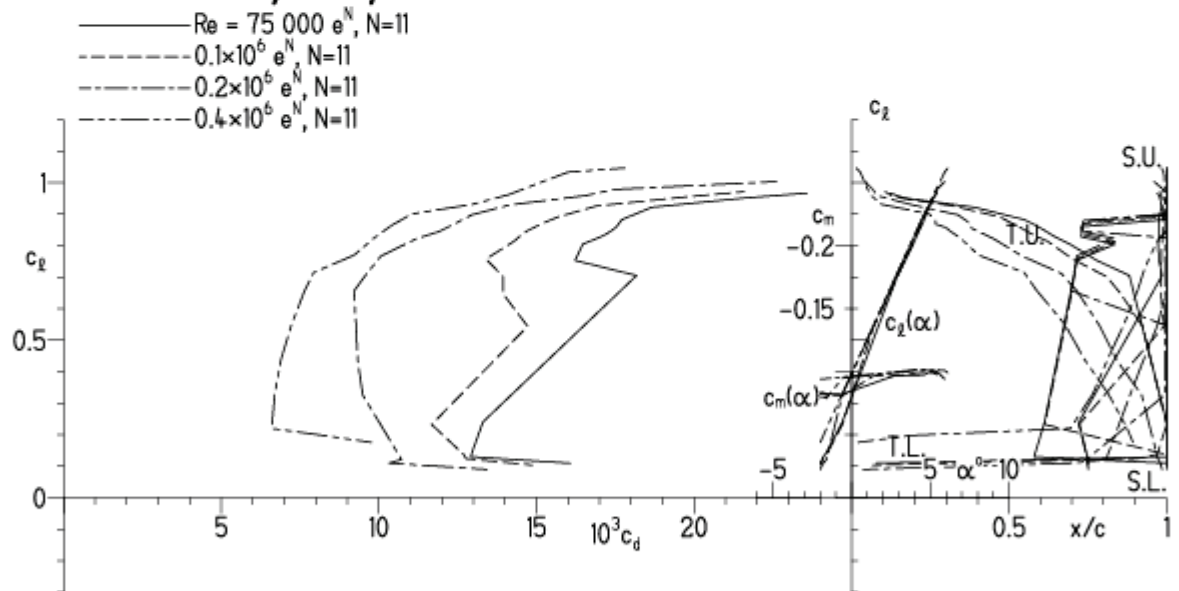
HQ/W-2,5/8,5, N=11

EPPLER 2005 V. 8.5.07 RUN 15.3.11 16:03



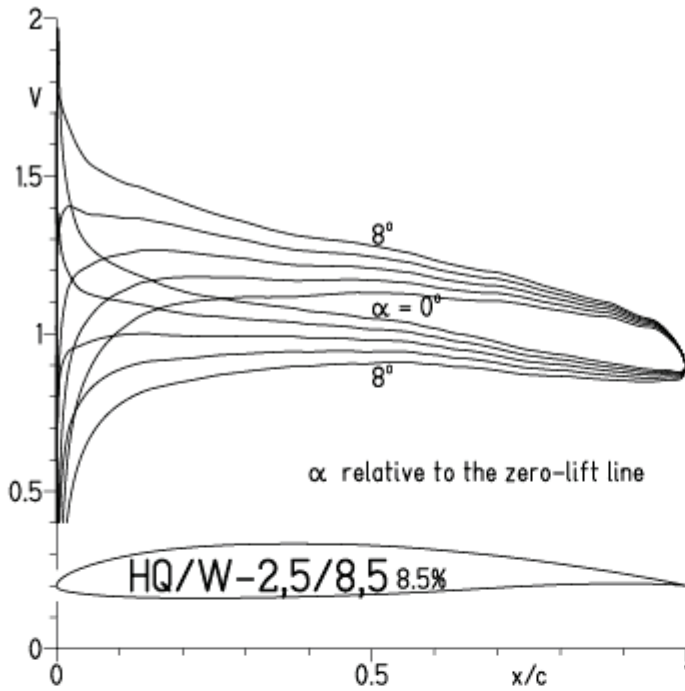
EPPLER 2005 V. 8.5.07 RUN 15.3.11 16:03

HQ/W-2,5/8,5 8.5%



HQ/W-2,5/8,5, N=9

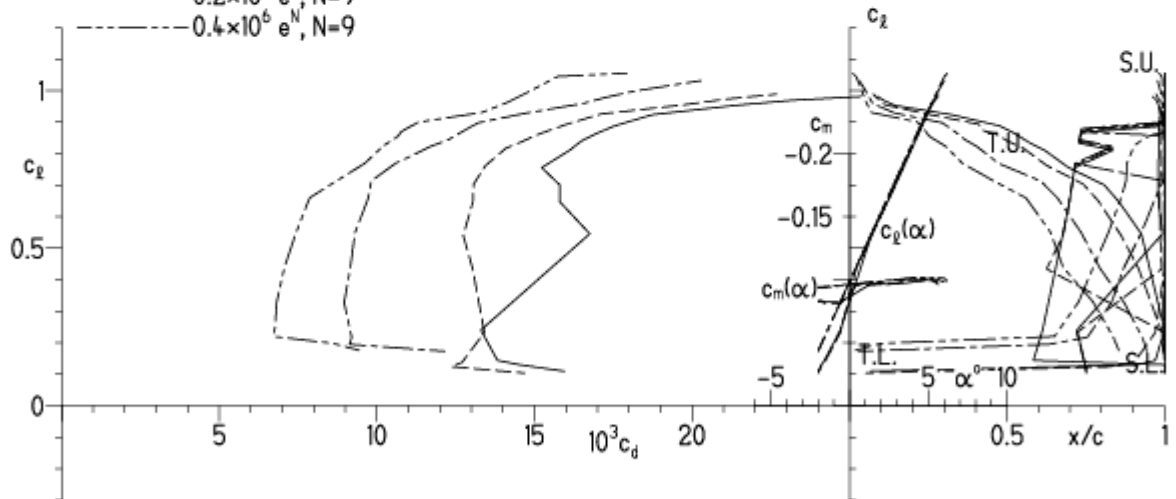
EPPLER 2005 V. 8.5.07 RUN 15.3.11 16:57



EPPLER 2005 V. 8.5.07 RUN 15.3.11 16:57

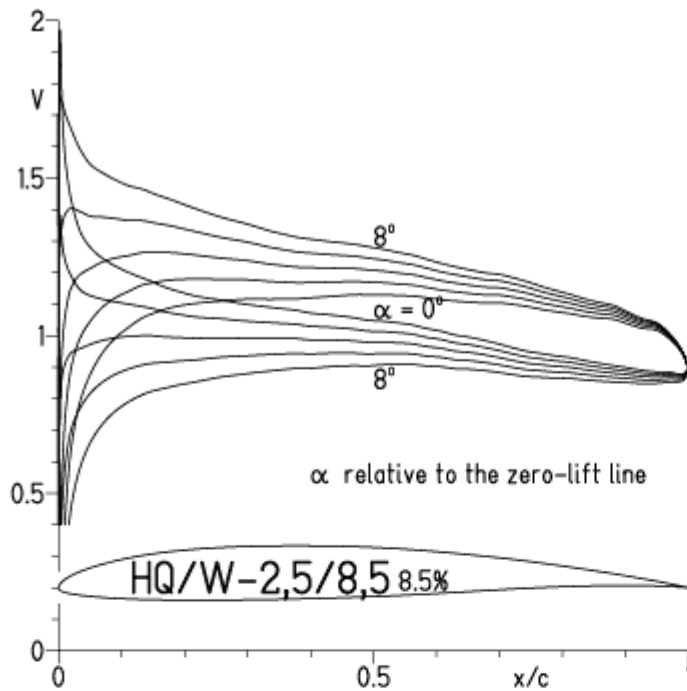
HQ/W-2,5/8,5 8.5%

- $Re = 75\,000 e^N, N=9$
- - - $0.1 \times 10^6 e^N, N=9$
- · - $0.2 \times 10^6 e^N, N=9$
- - - $0.4 \times 10^6 e^N, N=9$



HQ/W-2,5/8,5, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

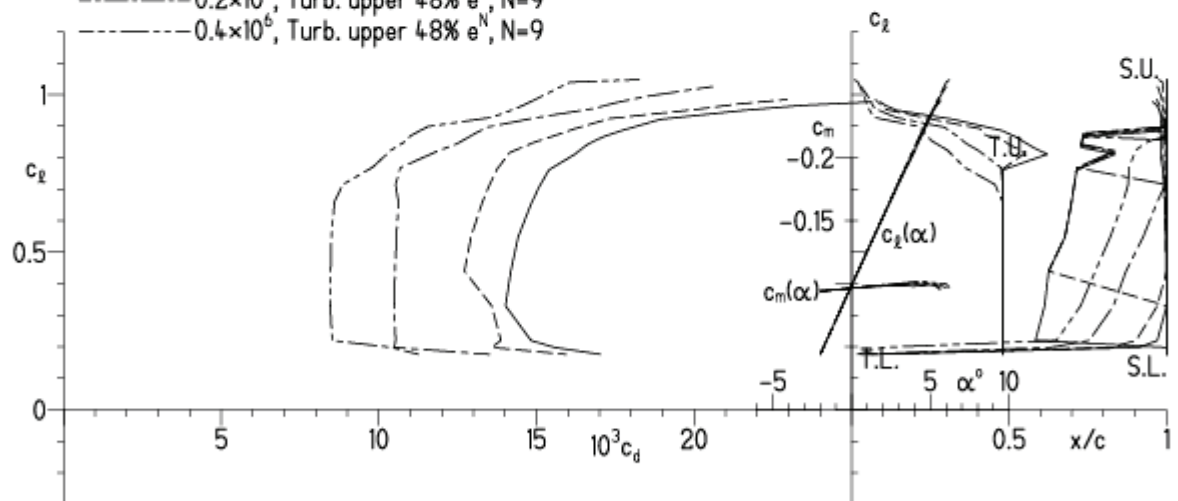
EPPLER 2005 V. 8.5.07 RUN 15.3.11 16:59



EPPLER 20

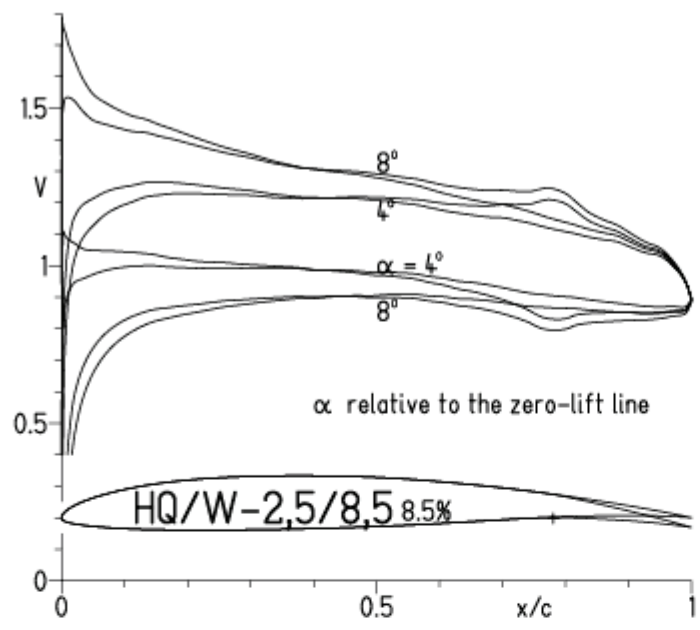
HQ/W-2,5/8,5 8.5%

- $Re = 75\,000$, Turb. upper 48% e^N , $N=9$
- - - 0.1×10^6 , Turb. upper 48% e^N , $N=9$
- · - 0.2×10^6 , Turb. upper 48% e^N , $N=9$
- - - 0.4×10^6 , Turb. upper 48% e^N , $N=9$



HQ/W-2,5/8,5, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:21

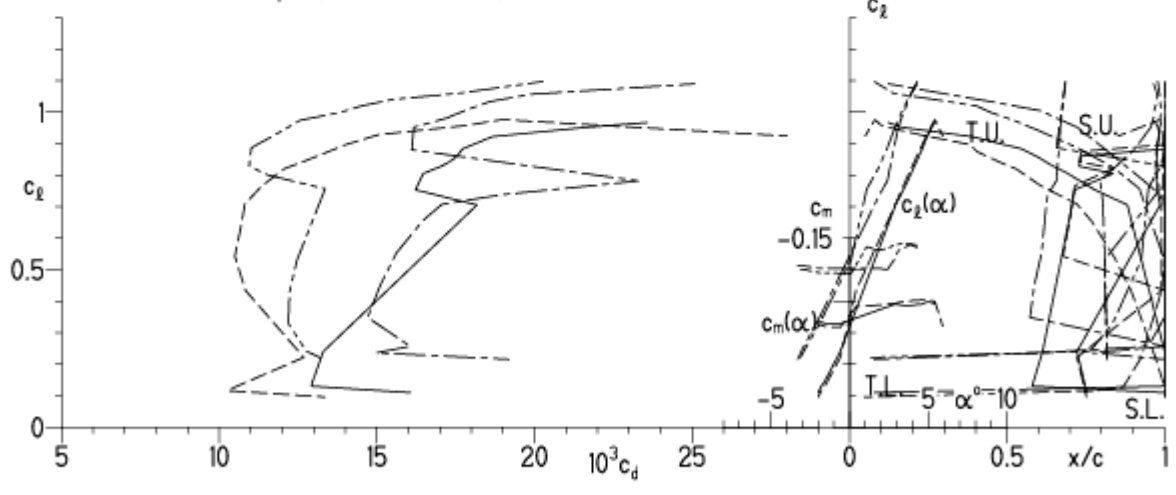


EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:21

HQ/W-2,5/8,5 8.5%

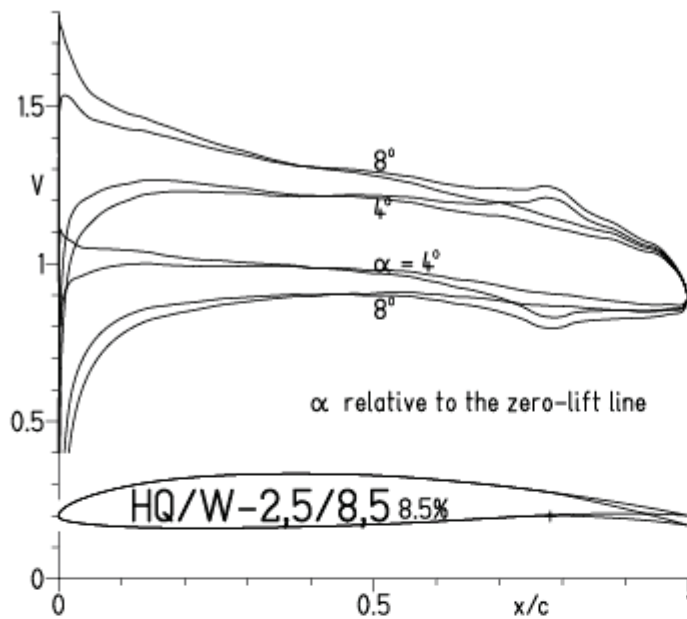
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/8,5, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:24

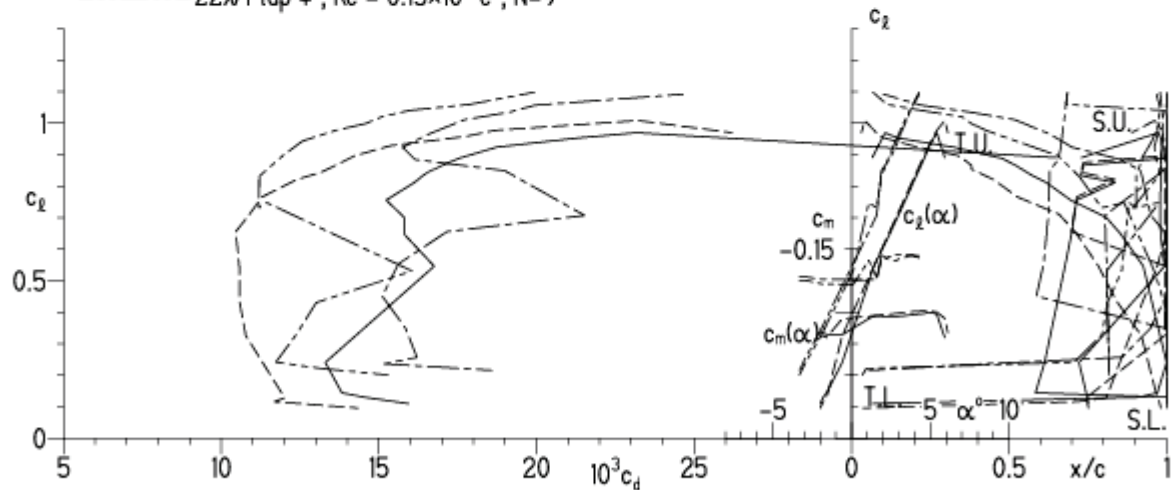


EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:24

HQ/W-2,5/8,5 8.5%

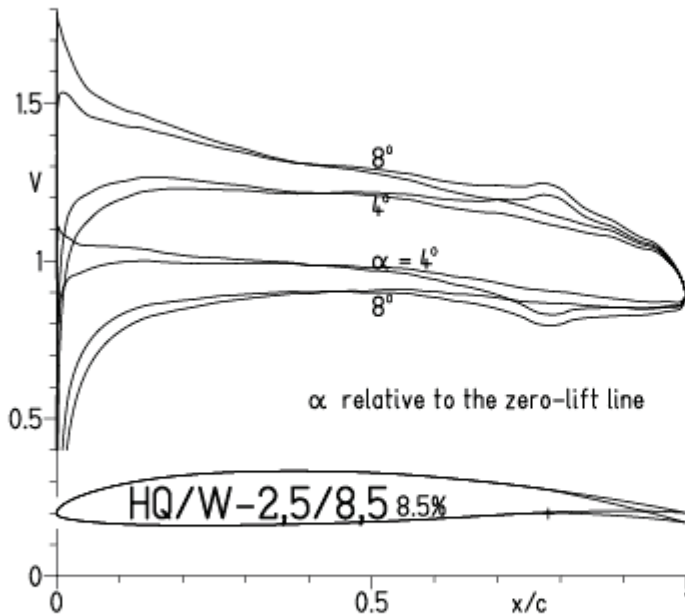
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/8,5, N=9 mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:26

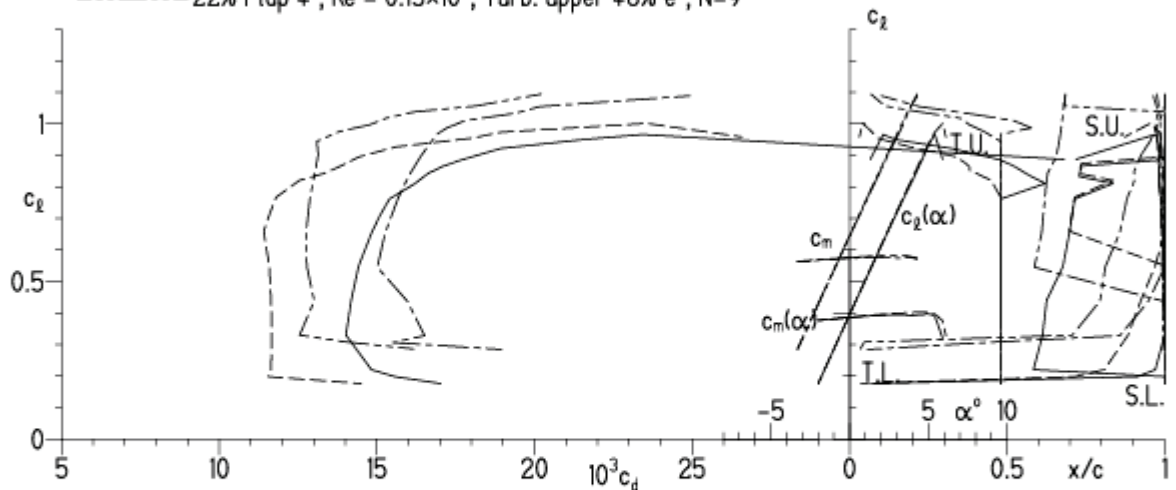


EPPLER 2005 V.

HQ/W-2,5/8,5 8.5%

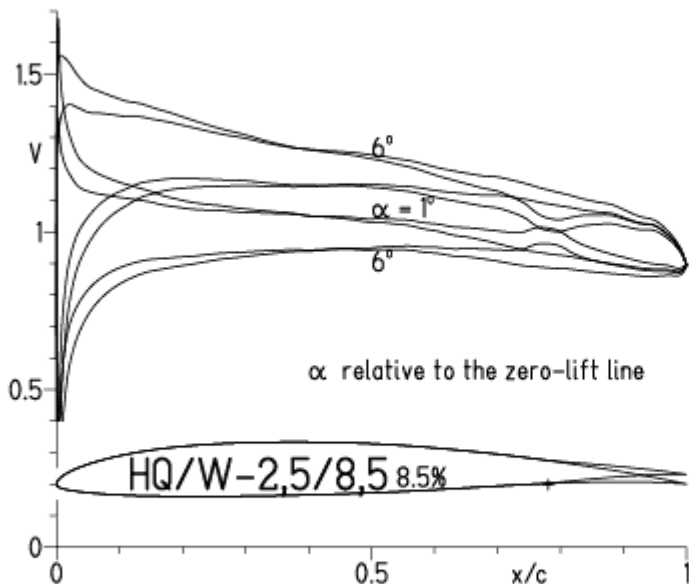
- Re = 75 000, Turb. upper 48% e^N, N=9
- - - 0.15×10⁶, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 75 000, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 0.15×10⁶, Turb. upper 48% e^N, N=9

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

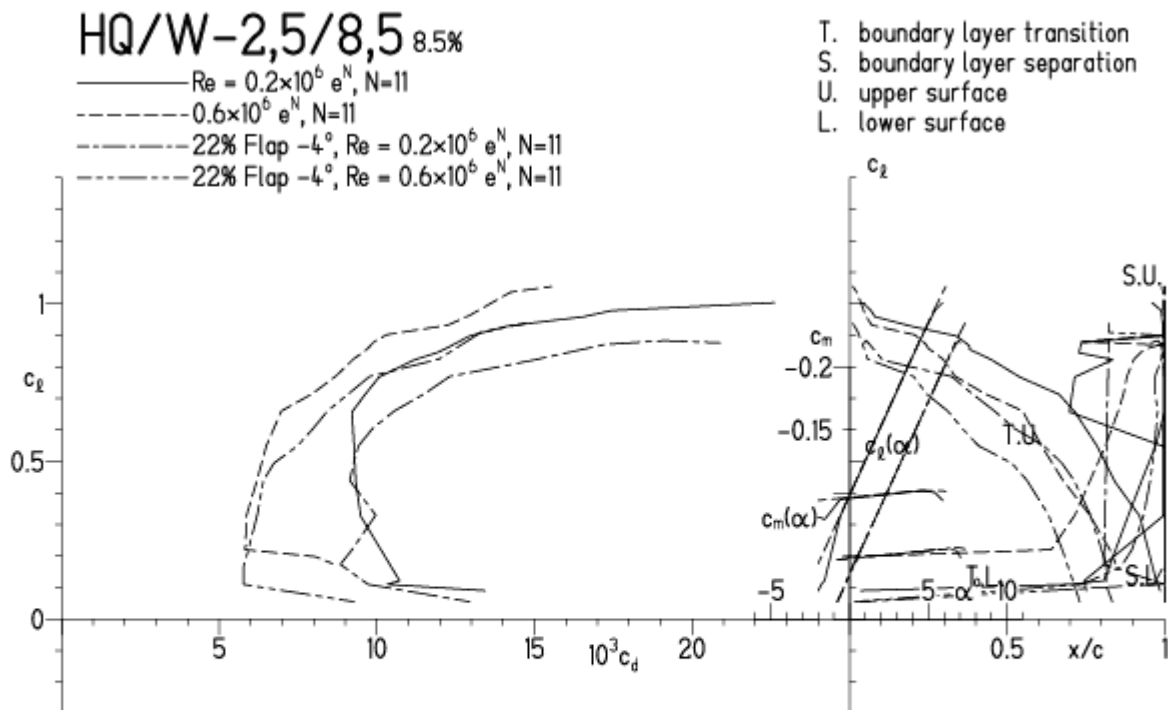


HQ/W-2,5/8,5, N=11 mit -4° Wölbklappenausschlag
 (F3J-Modelle mit 30 g/dm^2 erreichen damit ca. 20 - 25 m/s Höchstgeschwindigkeit)

EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:44

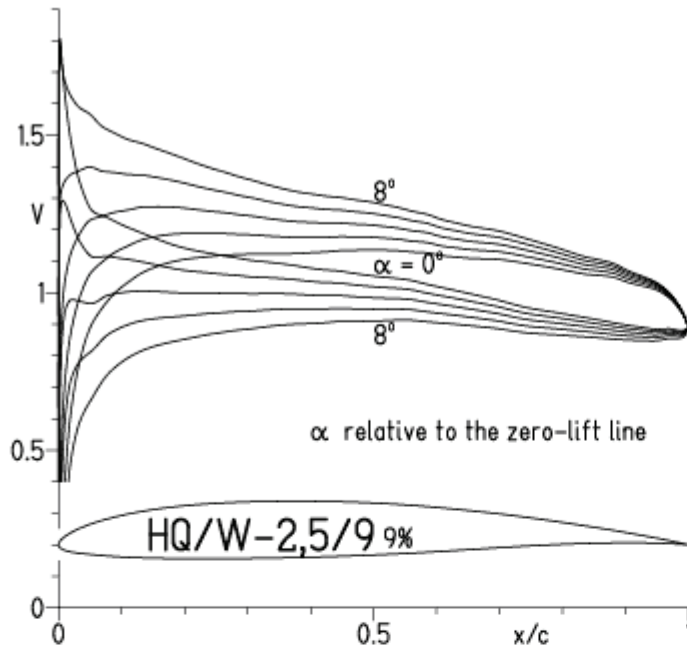


EPPLER 2005 V. 8.5.07 RUN 15.3.11 17:44

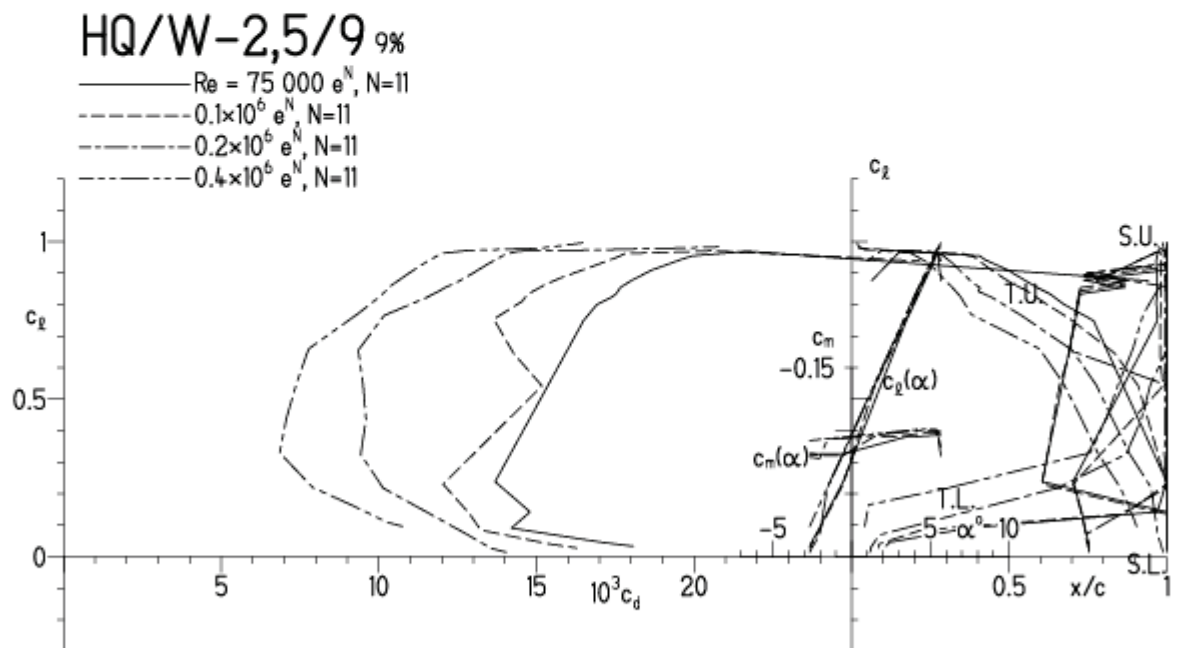


HQ/W-2,5/9, N=11

EPPLER 2005 V. 8.5.07 RUN 15.3.11 20:16

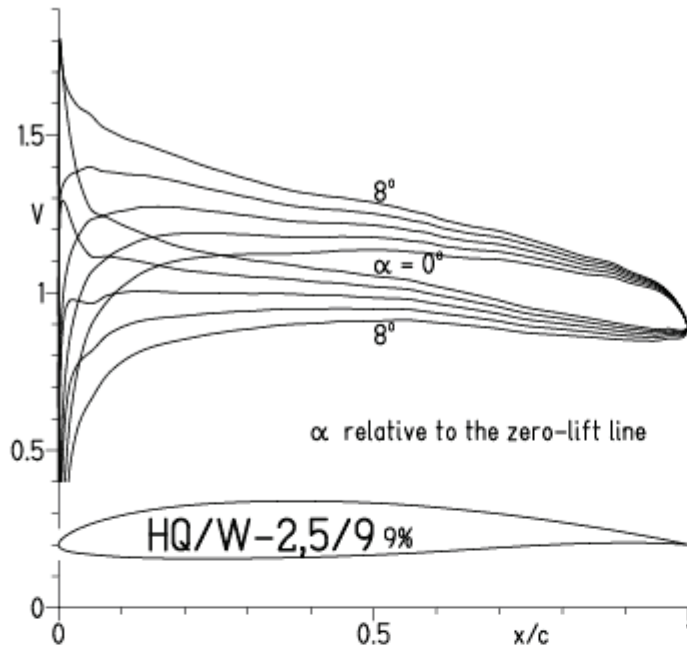


EPPLER 2005 V. 8.5.07 RUN 15.3.11 20:16

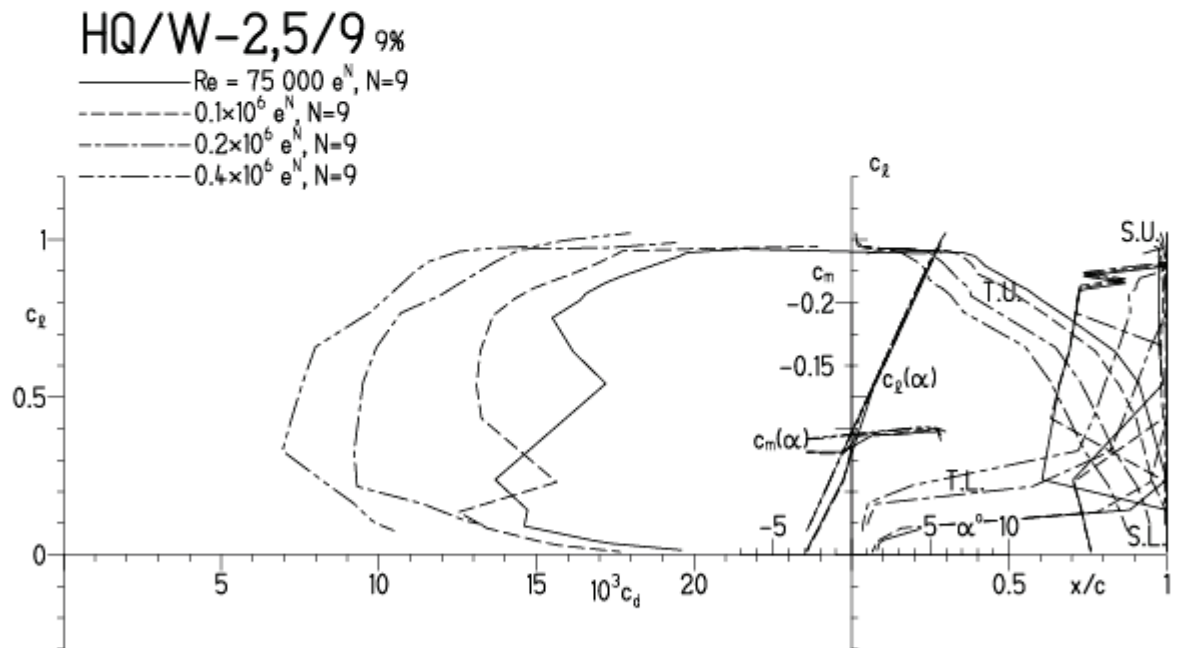


HQ/W-2,5/9, N=9

EPPLER 2005 V. 8.5.07 RUN 15.3.11 20:30

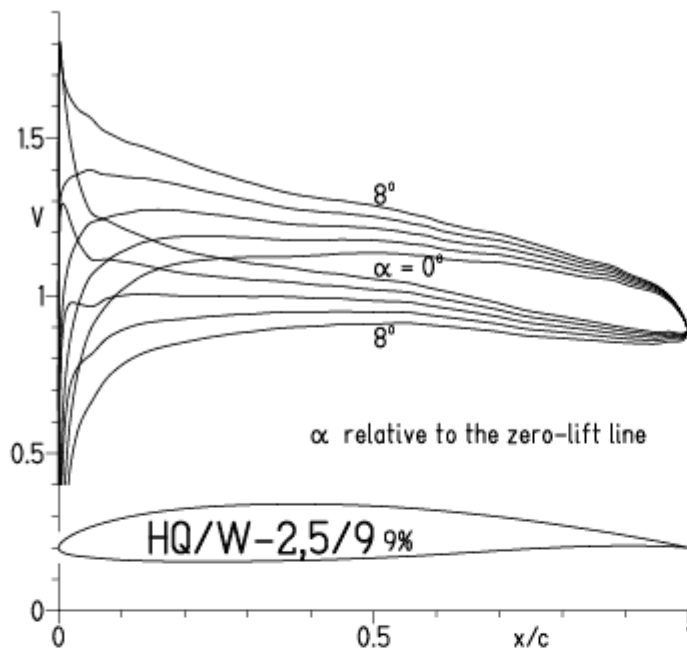


EPPLER 2005 V. 8.5.0



HQ/W-2,5/9, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

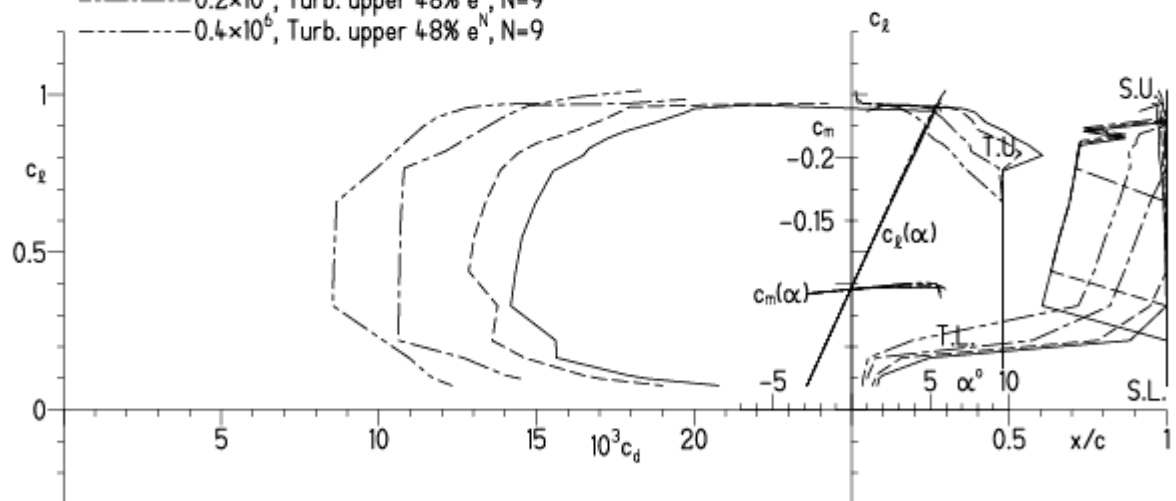
EPPLER 2005 V. 8.5.07 RUN 15.3.11 20:32



EPPLER 2005 V. 8.5.07 RUN 15.

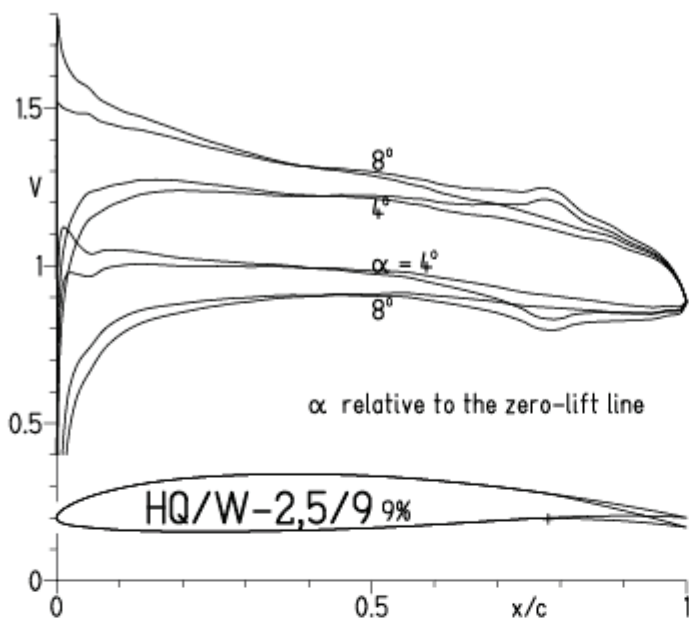
HQ/W-2,5/9 9%

- $Re = 75\,000$, Turb. upper 48% e^N , $N=9$
- - - 0.1×10^6 , Turb. upper 48% e^N , $N=9$
- · - 0.2×10^6 , Turb. upper 48% e^N , $N=9$
- - - 0.4×10^6 , Turb. upper 48% e^N , $N=9$



HQ/W-2,5/9, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 16.3.11 18:18

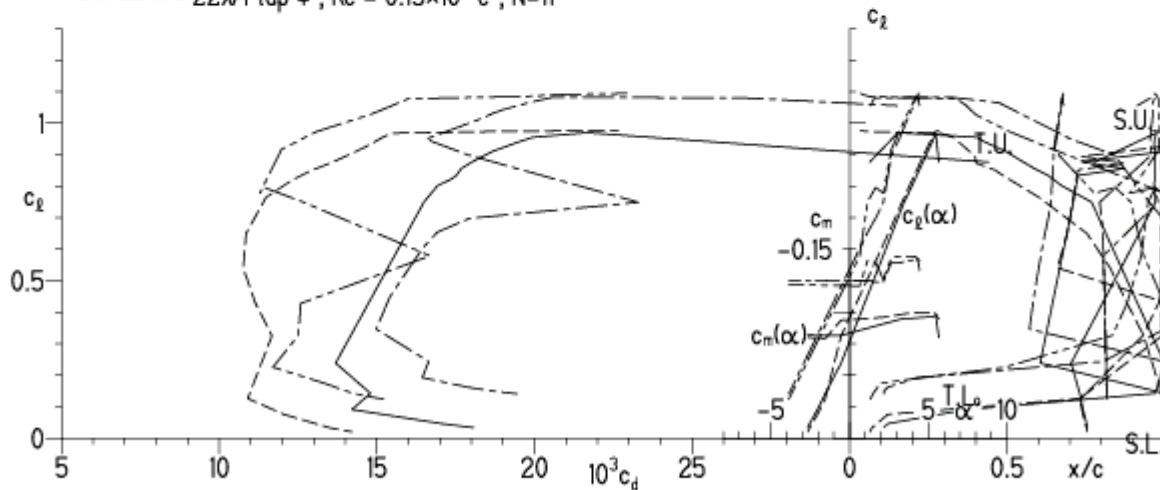


EPPLER 200

HQ/W-2,5/9 9%

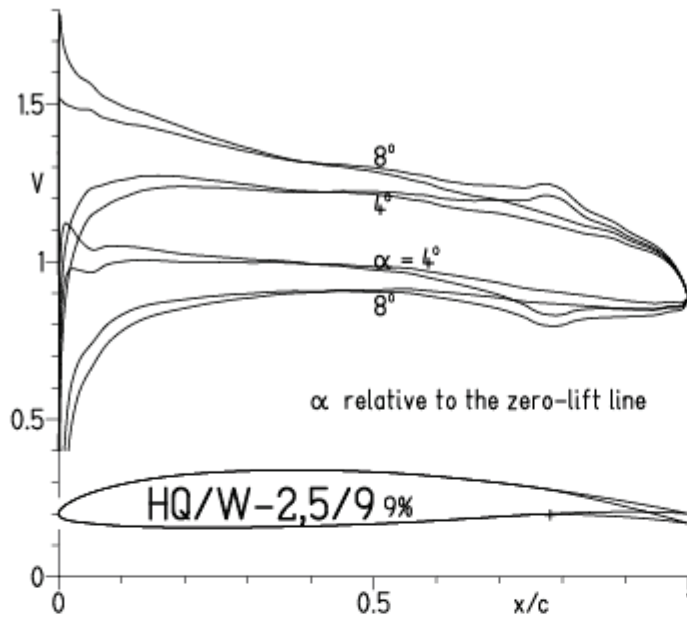
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/9, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 16.3.11 18:21

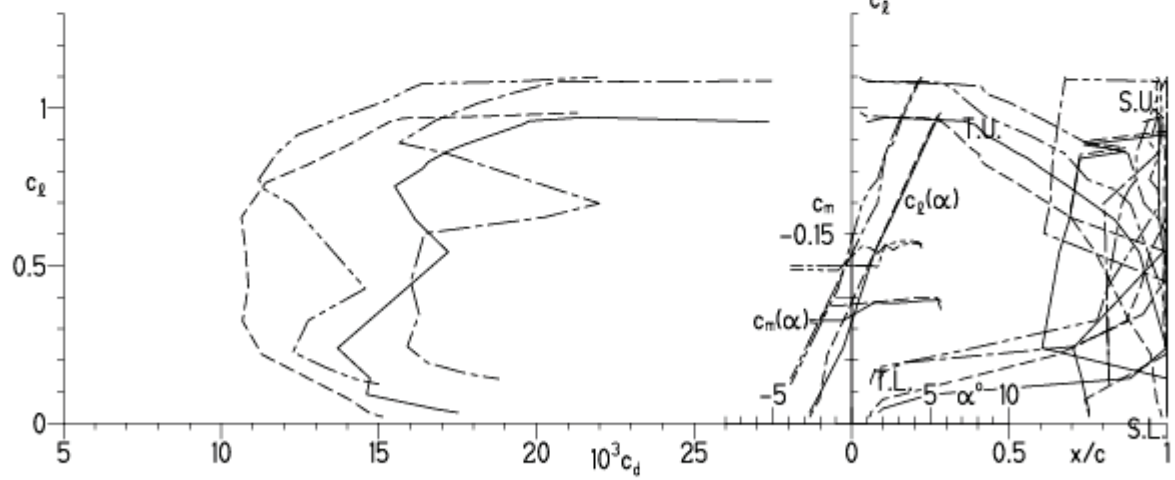


EPPLER 20

HQ/W-2,5/9 9%

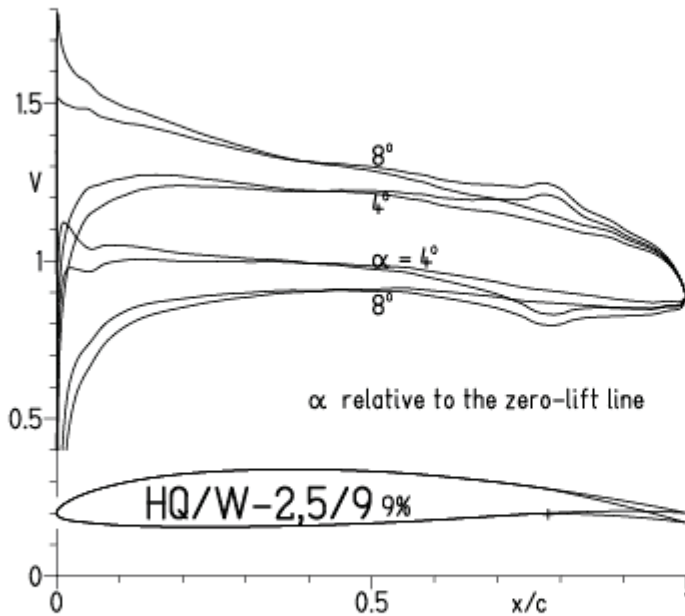
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · - 22% Flap 4°, $Re = 75\,000 e^N, N=9$
- · - · - 22% Flap 4°, $Re = 0.15 \times 10^6 e^N, N=9$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/9, N=9 mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 16.3.11 18:24

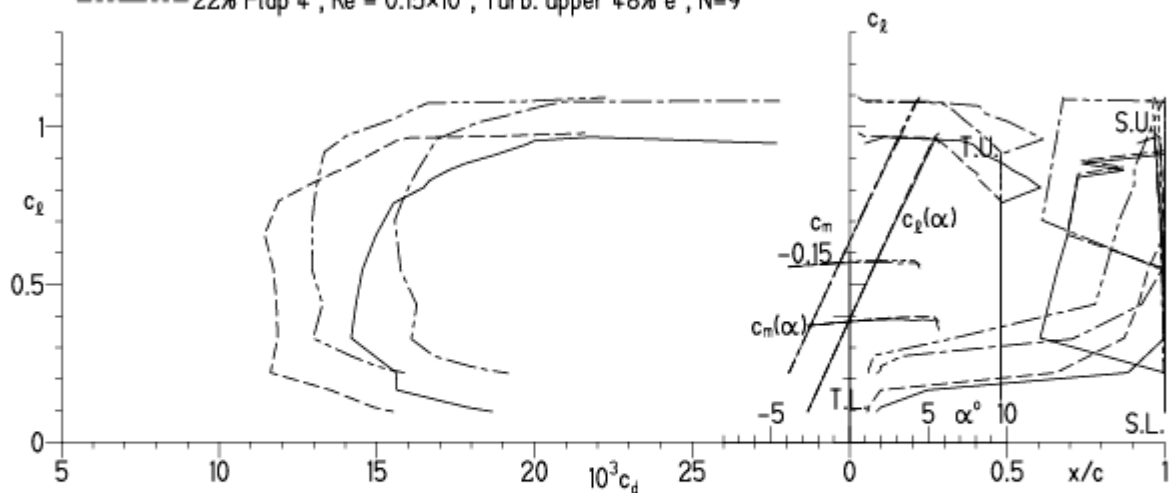


EPPLER 2005 V. 8.5.07 RU

HQ/W-2,5/9 9%

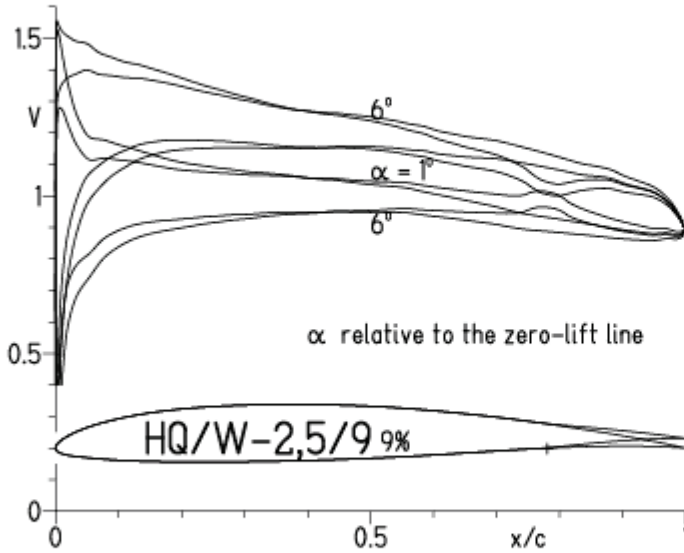
- Re = 75 000, Turb. upper 48% e^N, N=9
- - - 0.15×10⁶, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 75 000, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 0.15×10⁶, Turb. upper 48% e^N, N=9

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

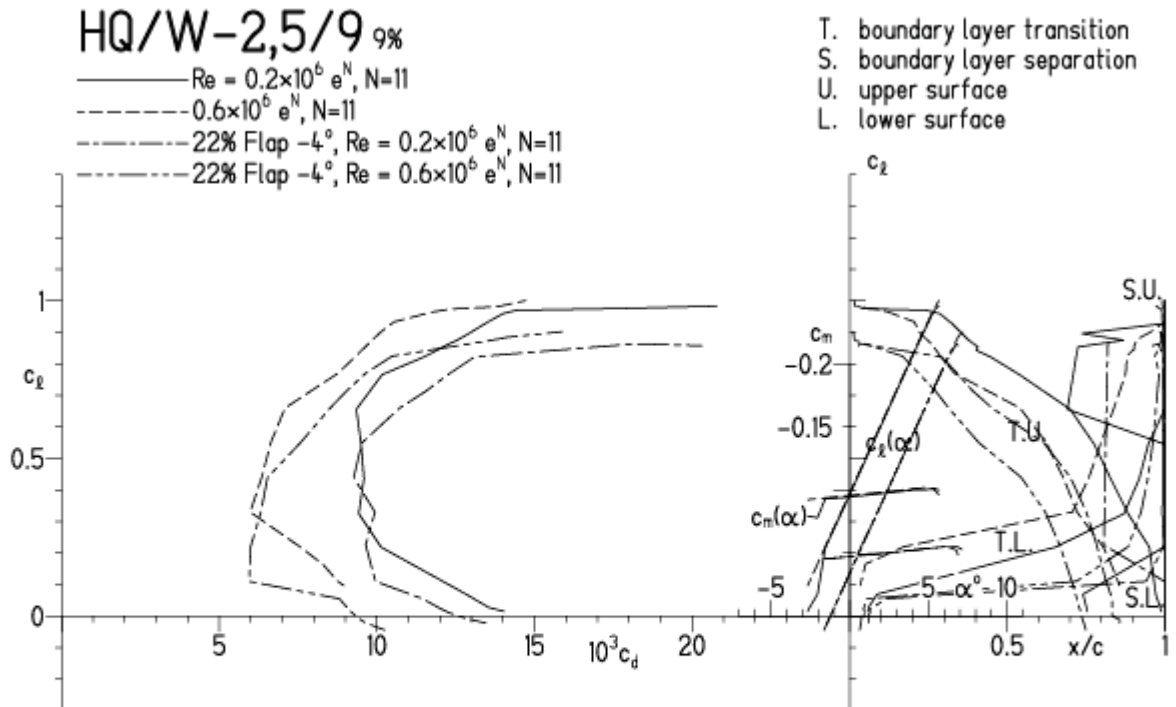


HQ/W-2,5/9, N=11 mit -4° Wölbklappenausschlag
 (F3J-Modelle mit 30 g/dm^2 erreichen damit ca. 20 - 25 m/s Höchstgeschwindigkeit)

EPPLER 2005 V. 8.5.07 RUN 16.3.11 18:37

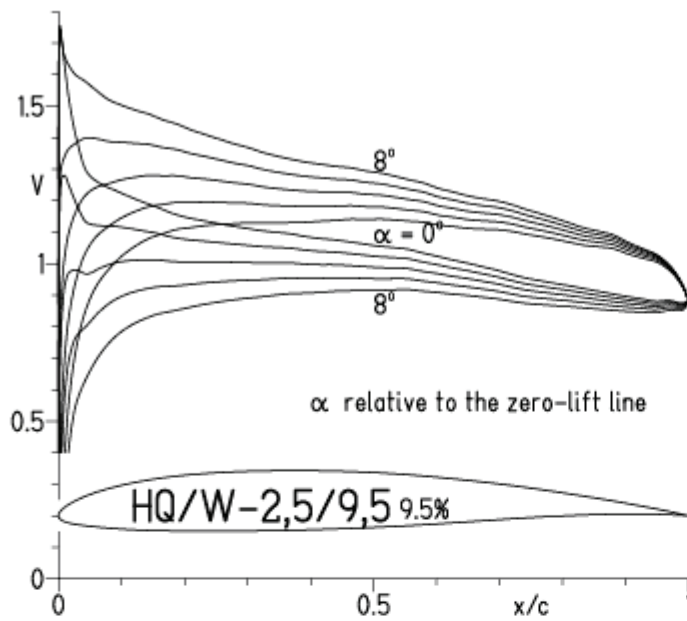


EPPLER 2005 V. 8.5.07 RUN 16.3.11 18

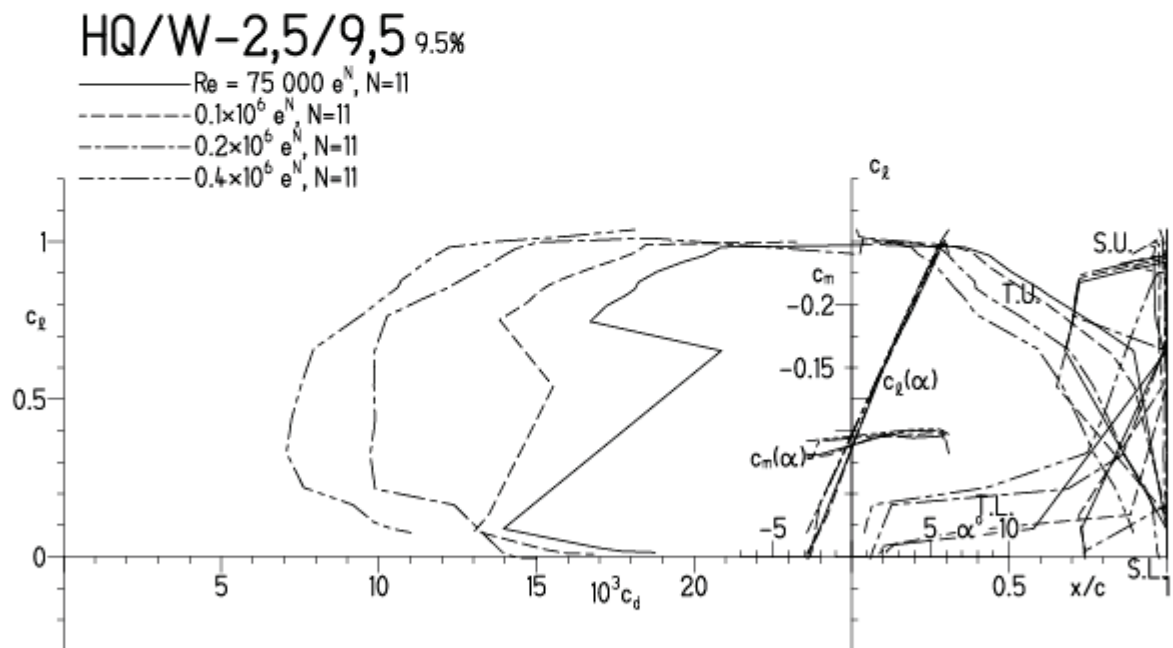


HQ/W-2,5/9,5, N=11

EPPLER 2005 V. 8.5.07 RUN 16.3.11 18:53

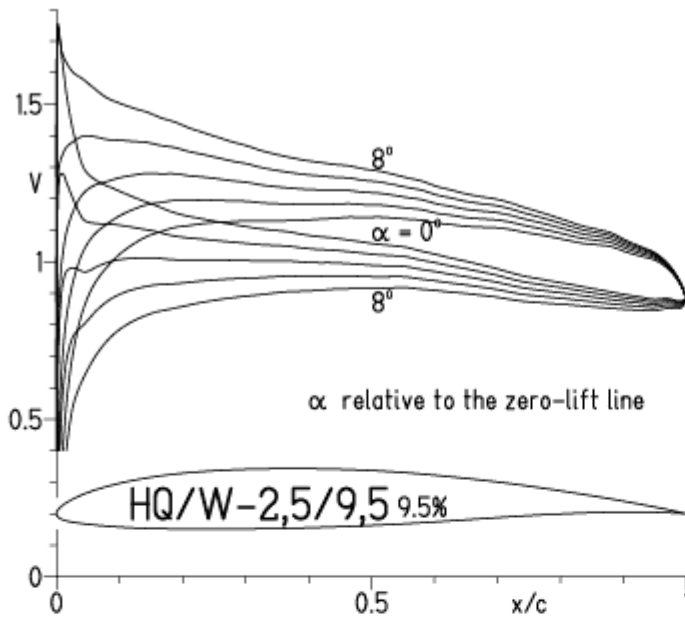


EPPLER 2005 V.



HQ/W-2,5/9,5, N=9

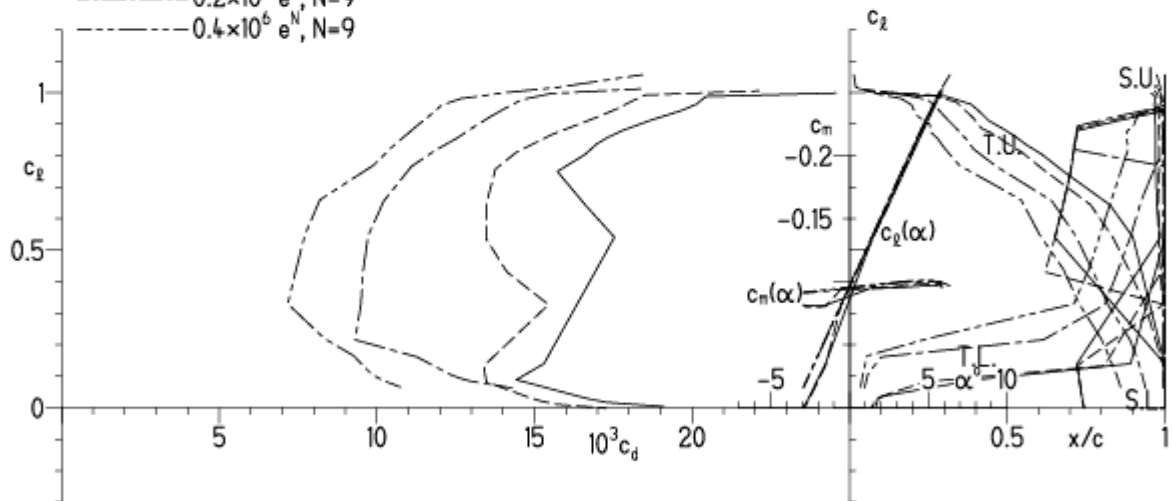
EPPLER 2005 V. 8.5.07 RUN 16.3.11 19:05



EPPLER 200

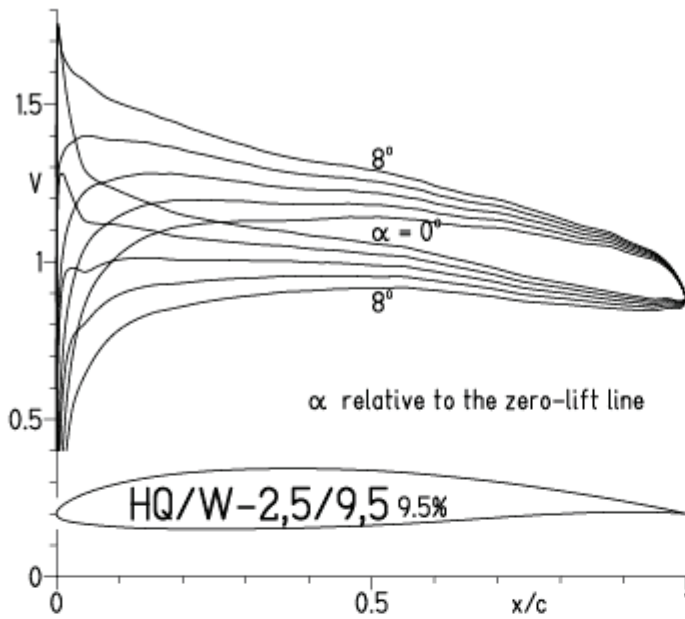
HQ/W-2,5/9,5 9.5%

- $Re = 75\ 000 e^N, N=9$
- - - $0.1 \times 10^6 e^N, N=9$
- · - $0.2 \times 10^6 e^N, N=9$
- · - · $0.4 \times 10^6 e^N, N=9$

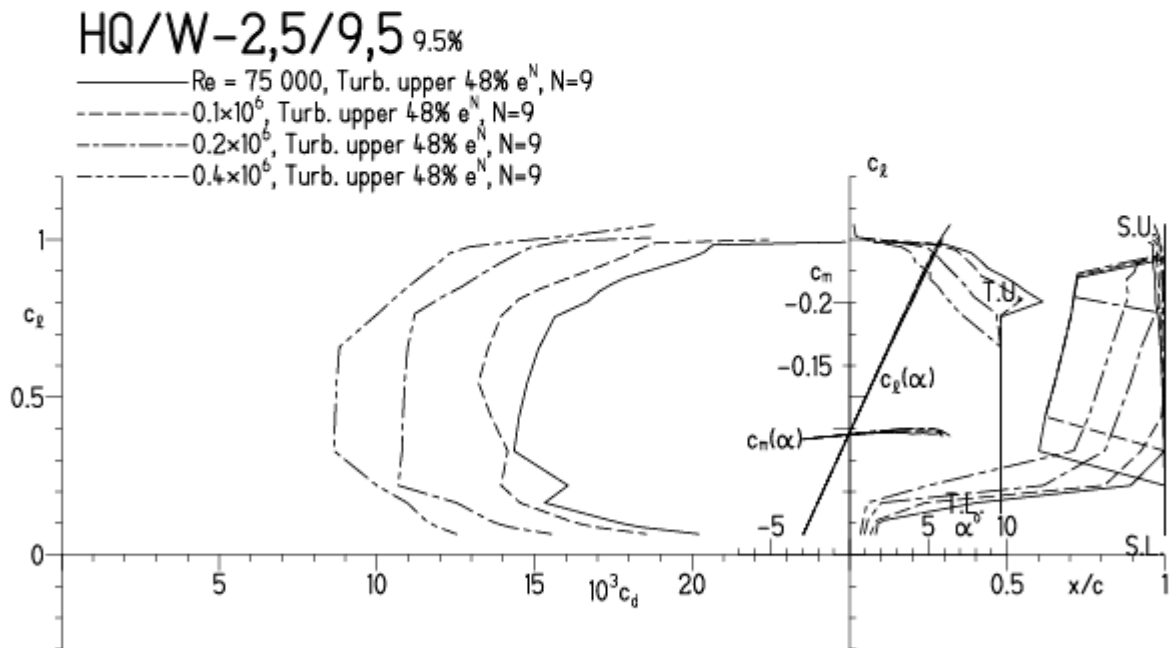


HQ/W-2,5/9,5, N=9, (Turbulatoreffekt (optimal beim Maximum der Wölbung))

EPPLER 2005 V. 8.5.07 RUN 16.3.11 19:03

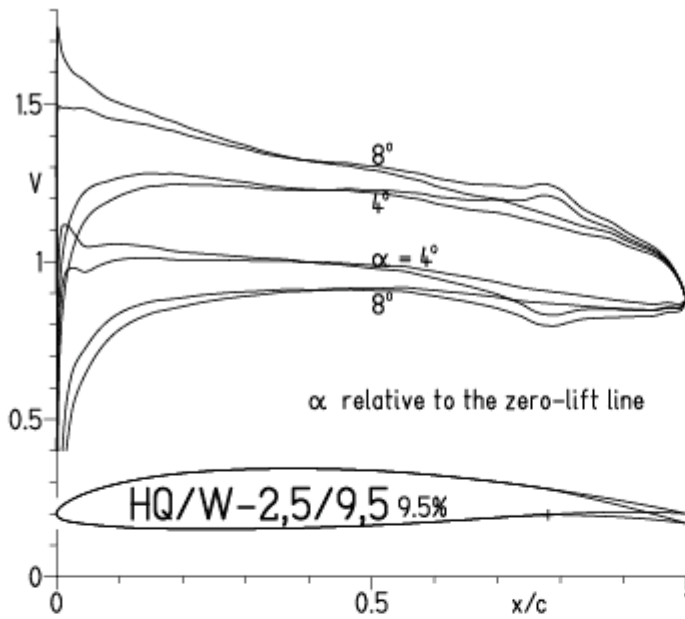


EPPLER 2005 V. 8.



HQ/W-2,5/9,5, N=11 mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 17.3.11 16:09

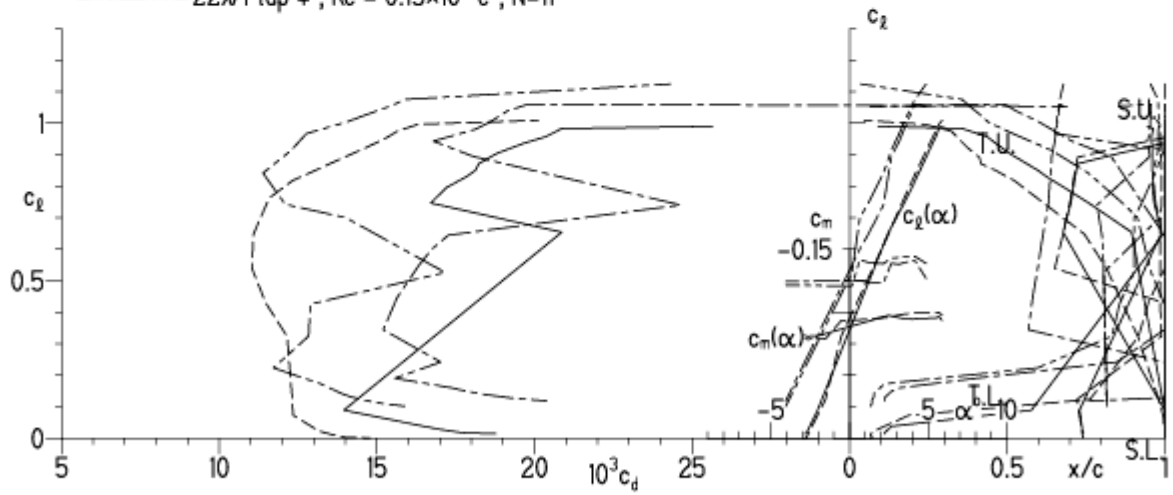


EPPLER 2005 V. 8.5.07 RUN 17.3

HQ/W-2,5/9,5 9.5%

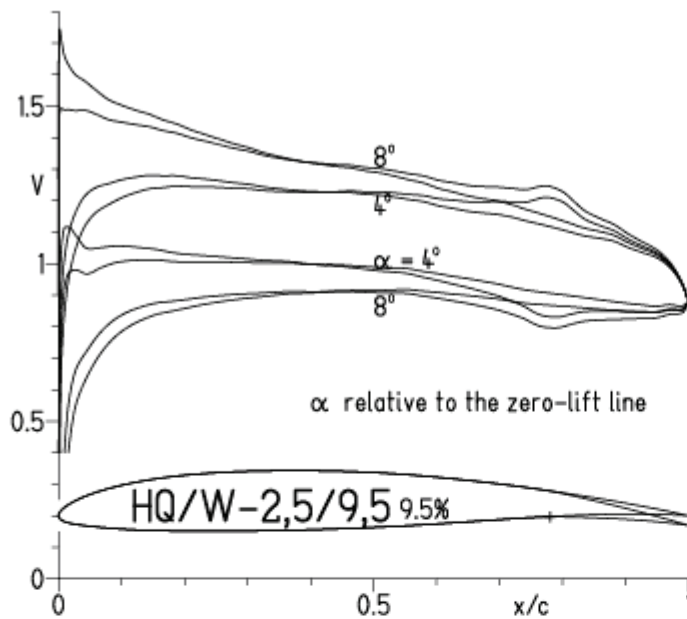
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/9,5, N=9 mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 17.3.11 16:15

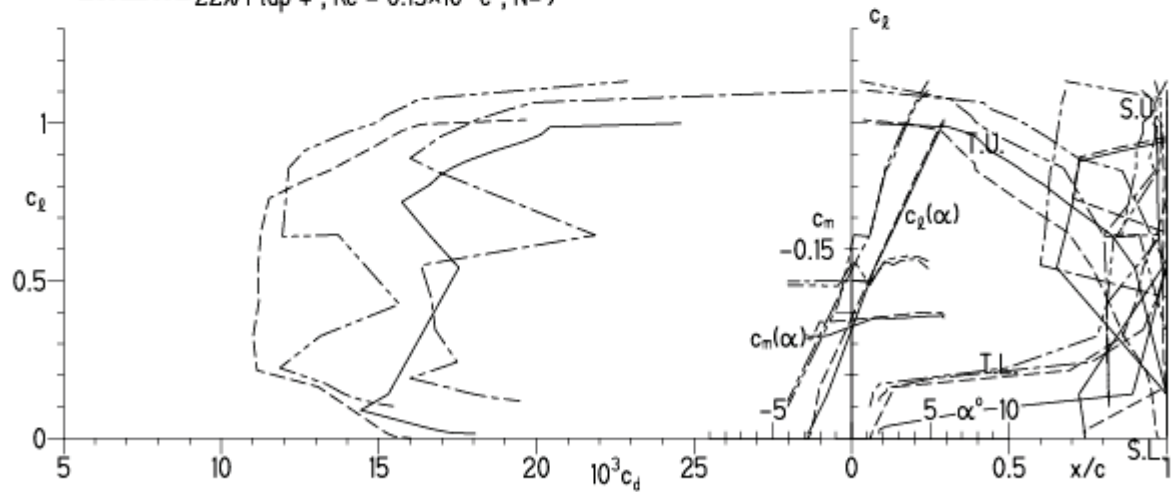


EPPLER 2005 V. 8.5.07 RUN 17.

HQ/W-2,5/9,5 9.5%

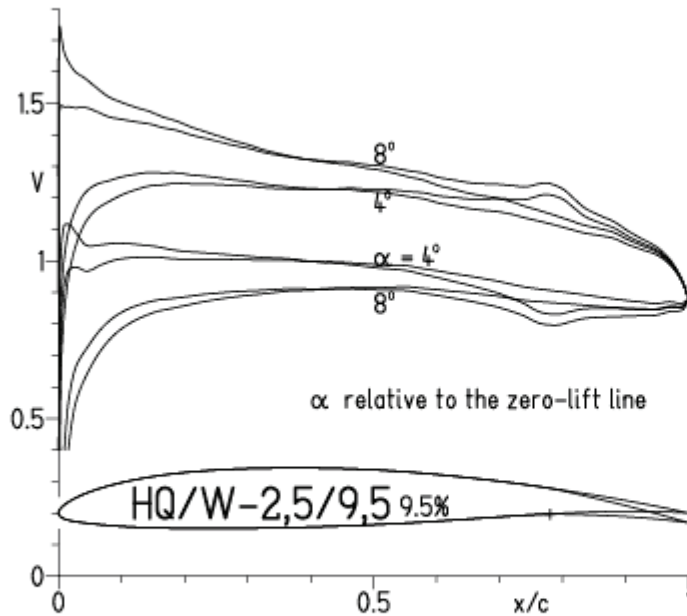
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/9,5, N=9 mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 17.3.11 16:18

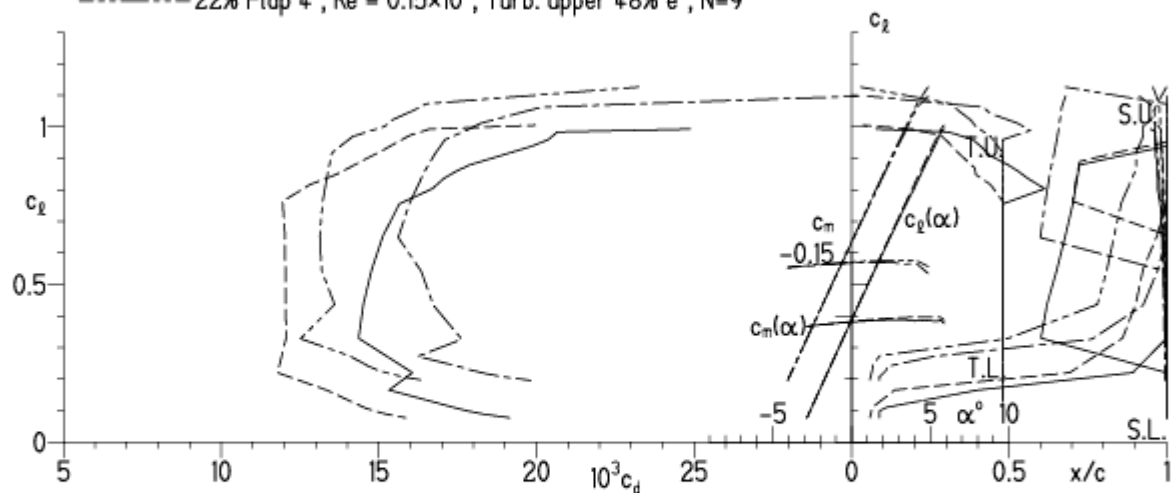


EPPLER 20

HQ/W-2,5/9,5 9.5%

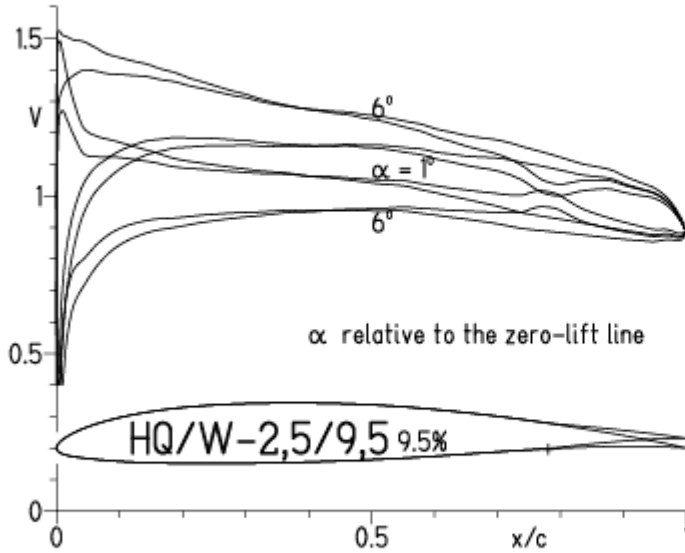
- Re = 75 000, Turb. upper 48% e^N , N=9
- - - 0.15×10^6 , Turb. upper 48% e^N , N=9
- · - 22% Flap 4°, Re = 75 000, Turb. upper 48% e^N , N=9
- · - 22% Flap 4°, Re = 0.15×10^6 , Turb. upper 48% e^N , N=9

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

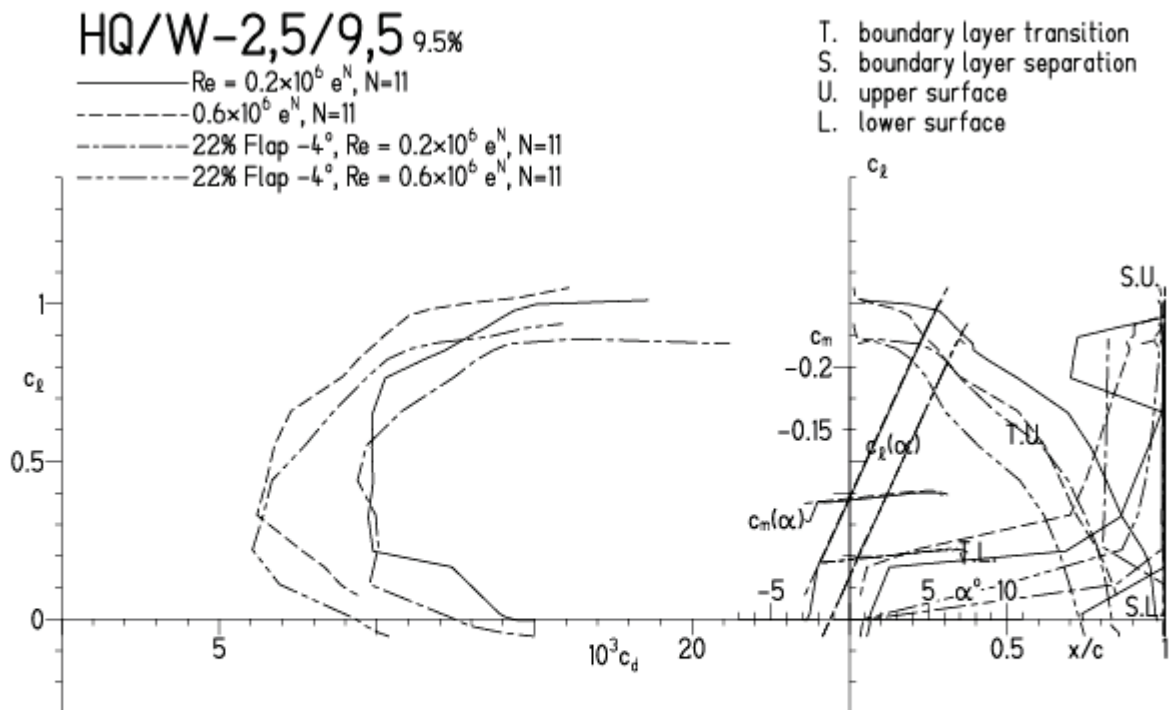


HQ/W-2,5/9,5, N=11 mit -4° Wölbklappenausschlag
 (F3J-Modelle mit 30 g/dm^2 erreichen damit ca. 20 - 25 m/s Höchstgeschwindigkeit)

EPPLER 2005 V. 8.5.07 RUN 17.3.11 16:50

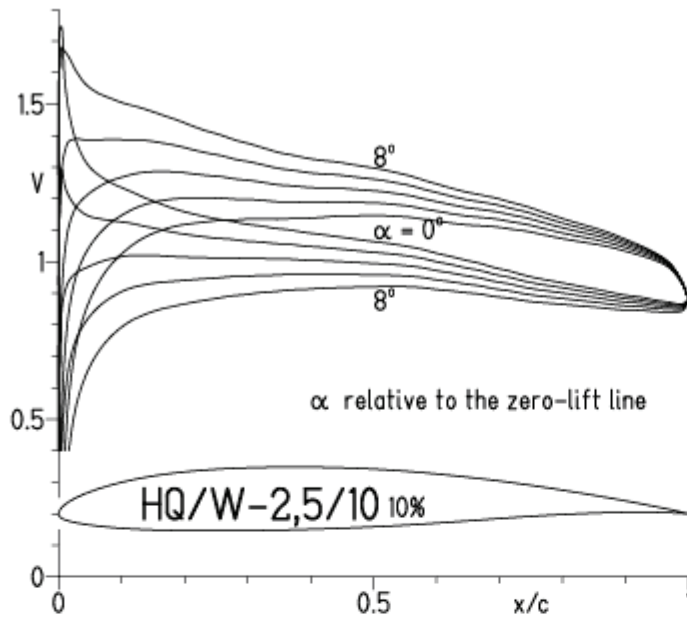


EPPLER 2005 V. 8.5.07 RUN 17.

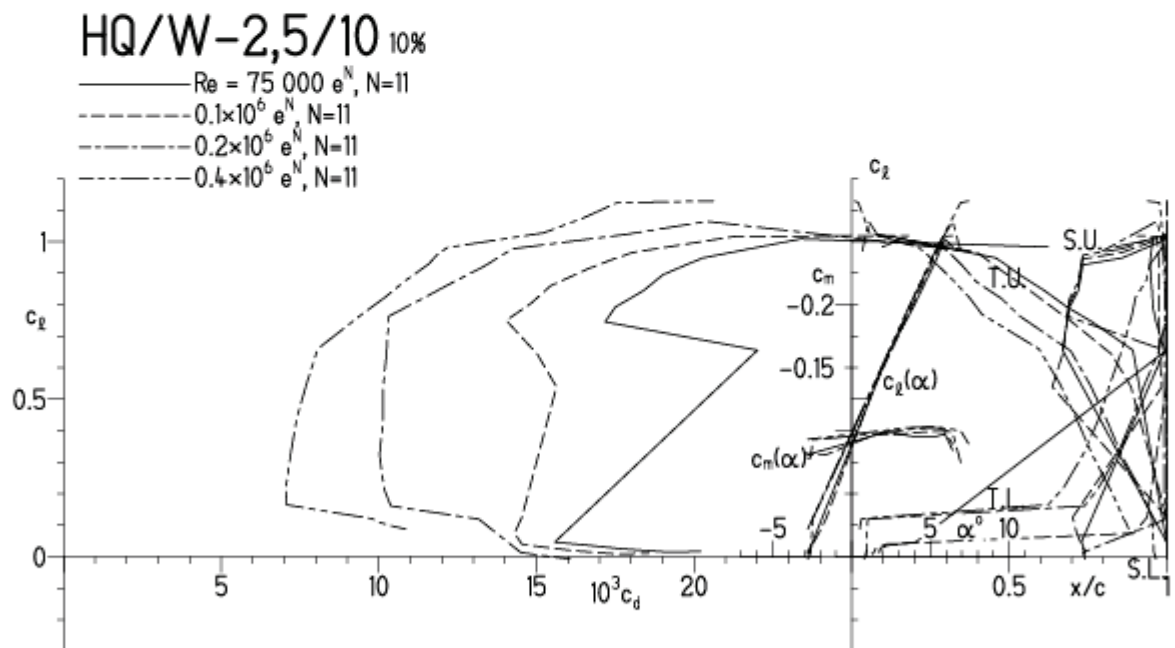


HQ/W-2,5/10, N=11

EPPLER 2005 V. 8.5.07 RUN 17.3.11 17:07

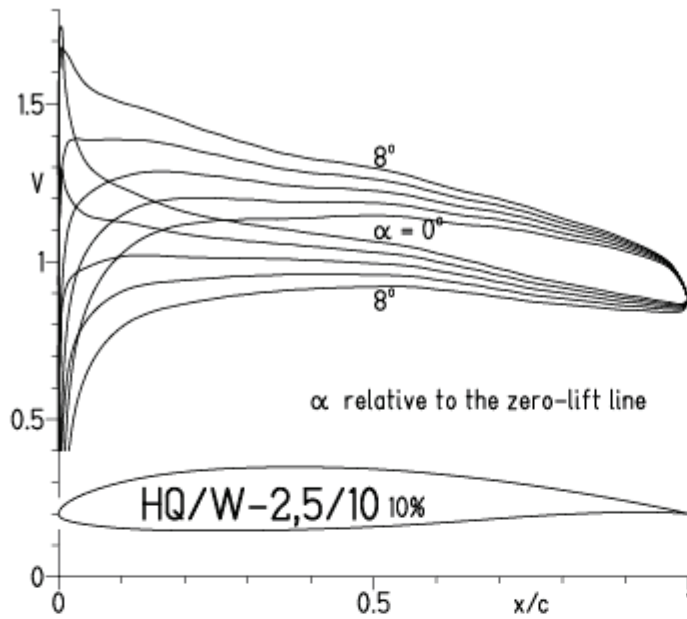


EPPLER 2005 V. 8.5.07 RUN 17.3

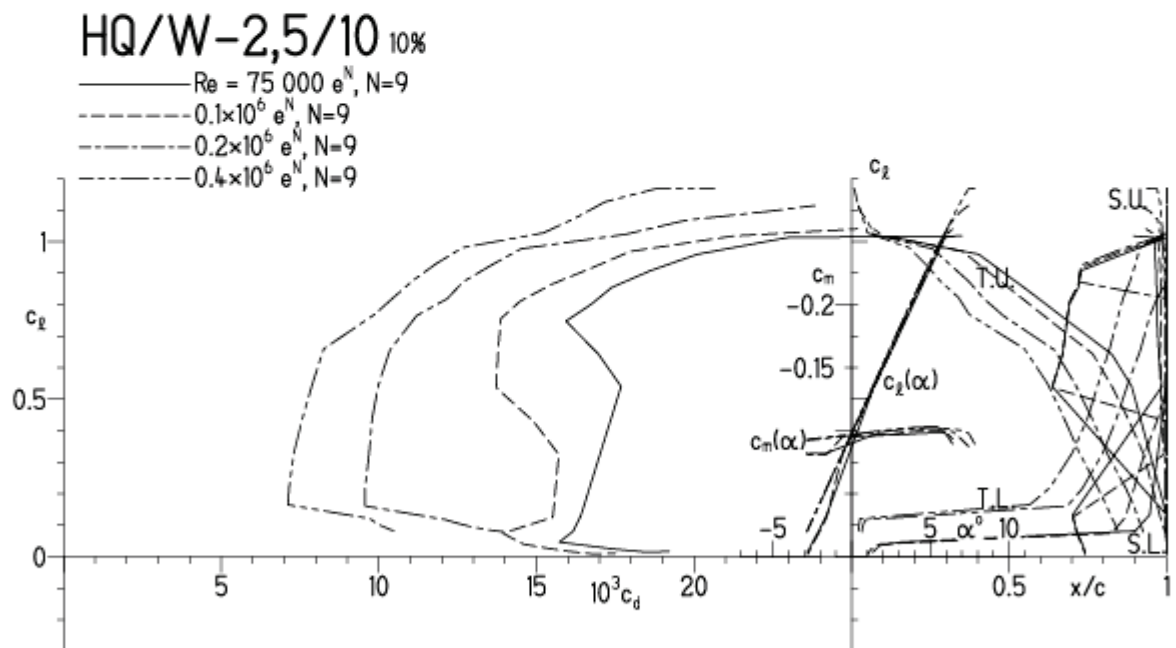


HQ/W-2,5/10, N=9

EPPLER 2005 V. 8.5.07 RUN 17.3.11 17:41

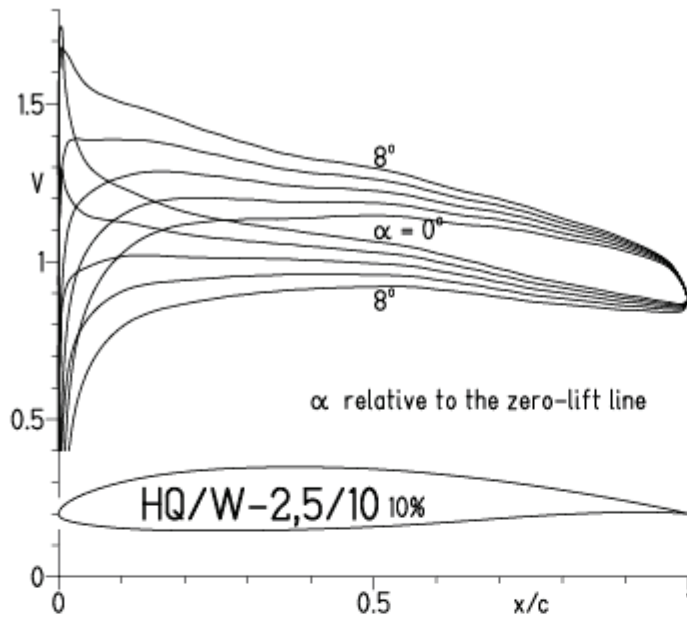


EPPLER 2005 V. 8.5.07

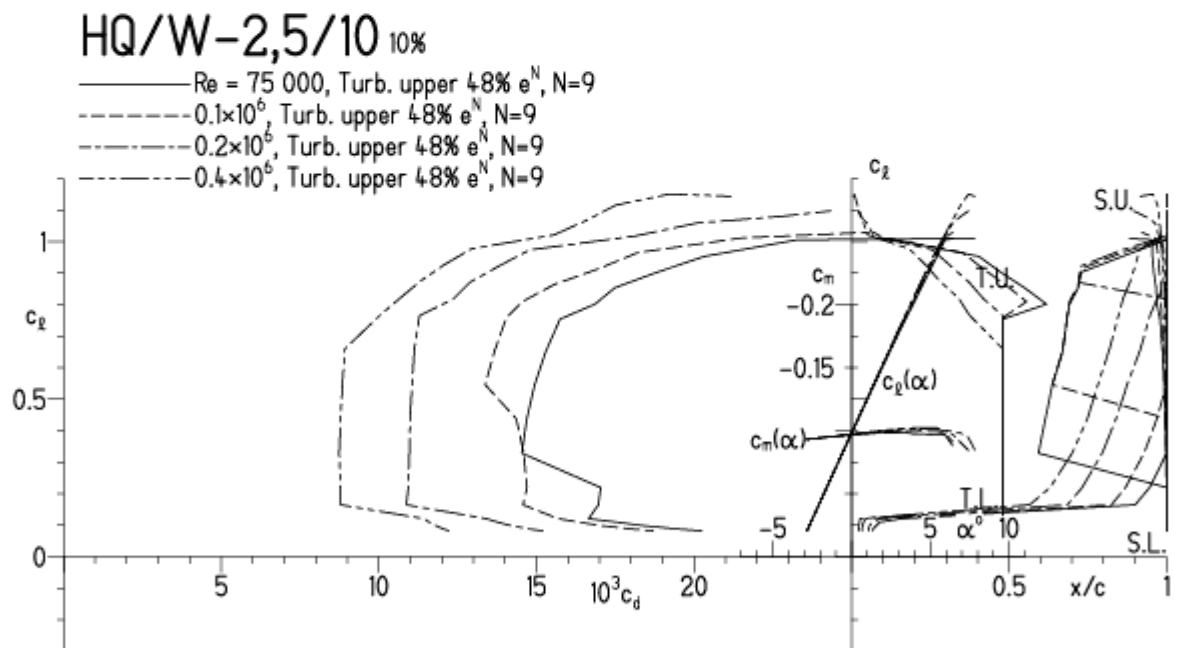


HQ/W-2,5/10, N=9, (Turbulatoreffekt (optimal beim Maximum der Wölbung))

EPPLER 2005 V. 8.5.07 RUN 17.3.11 17:43

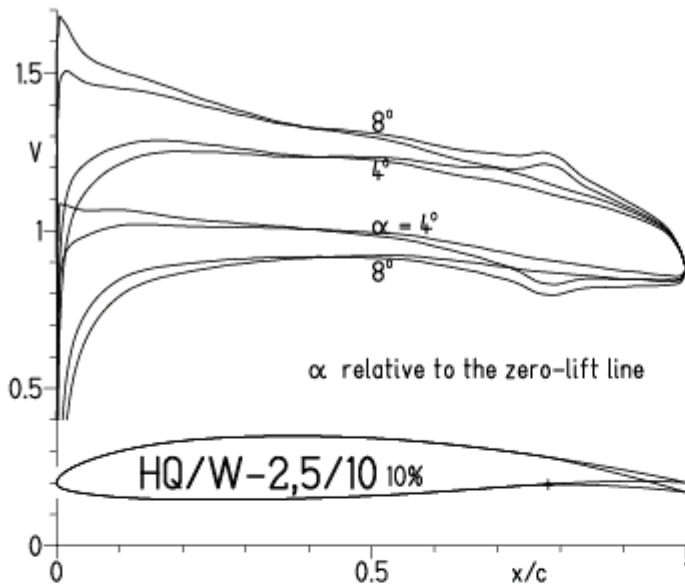


EPPLER 2005 V. 8.5.07 RUN 17.



HQ/W-2,5/10, N=11 mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 17.3.11 17:54

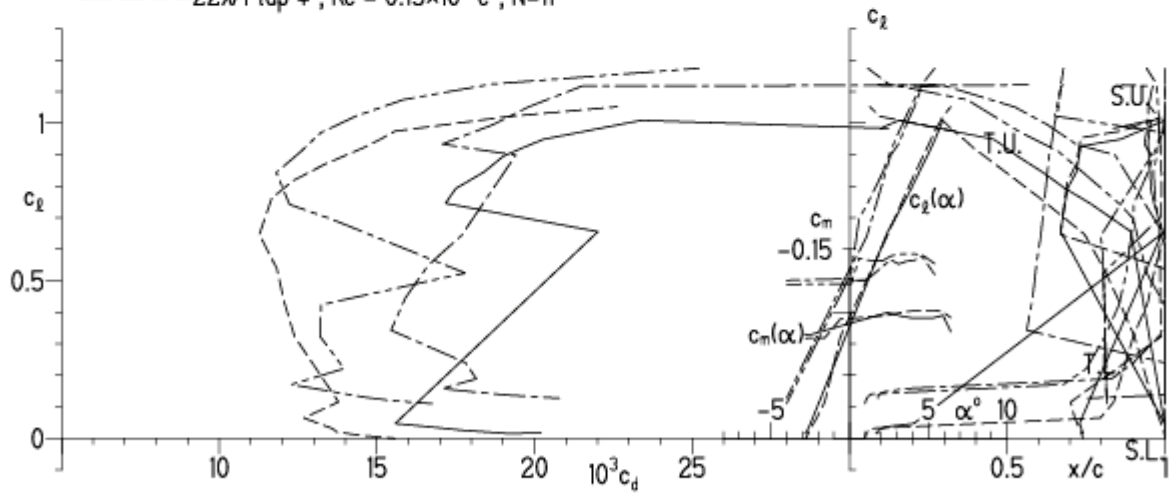


EPPLER 2005 V. 8.5.07 RUN 1

HQ/W-2,5/10 10%

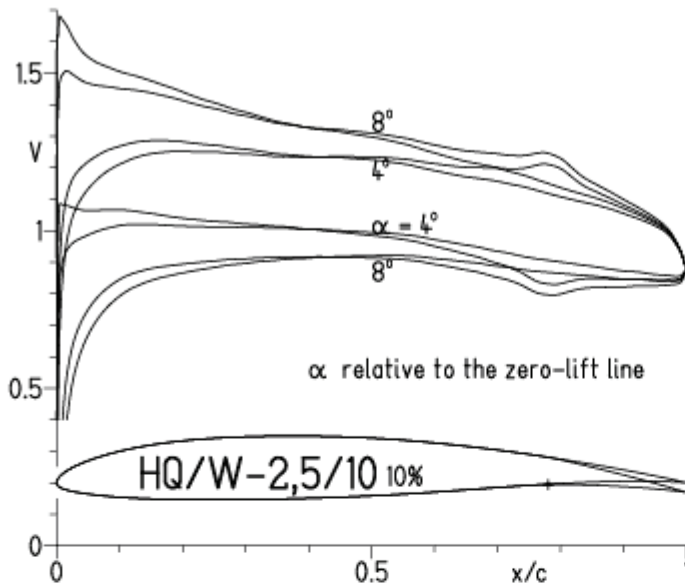
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

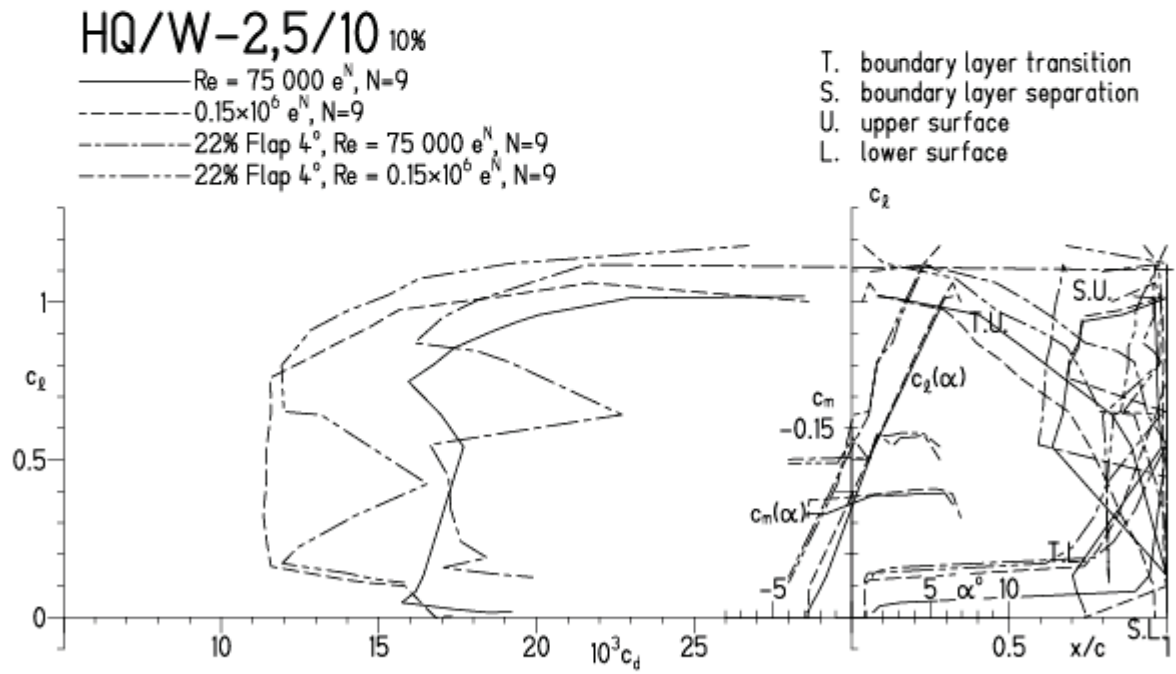


HQ/W-2,5/10, N=9 mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 17.3.11 18:01

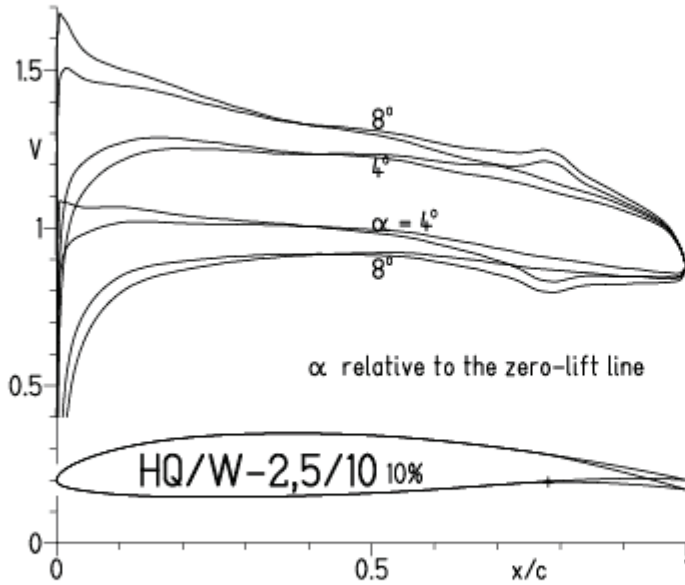


EPPLER 2005 V. 8.5.07 RUN 17.3.11 18:01



HQ/W-2,5/10, N=9 mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 17.3.11 18:34

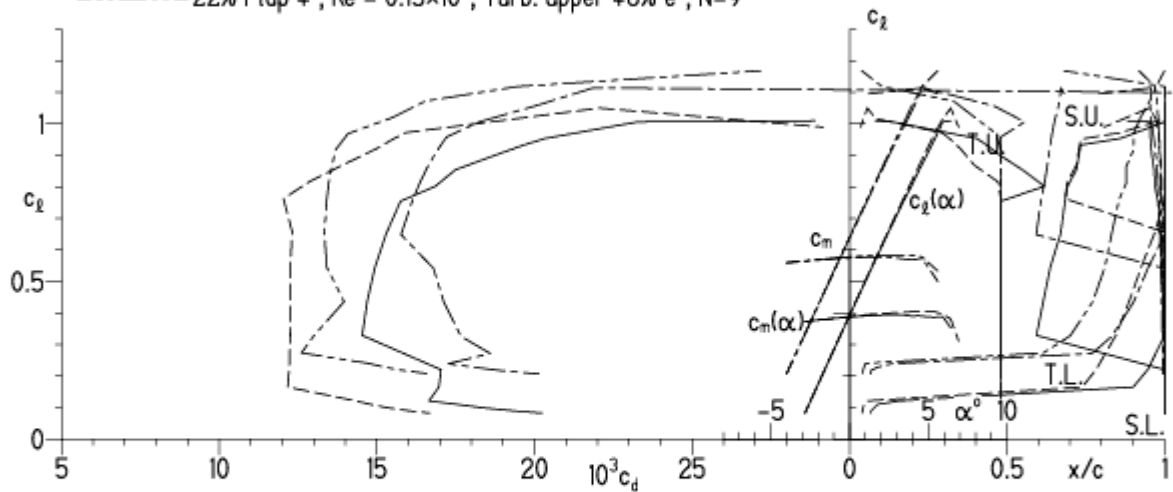


EPPLER 2005 V. 8.5.07

HQ/W-2,5/10 10%

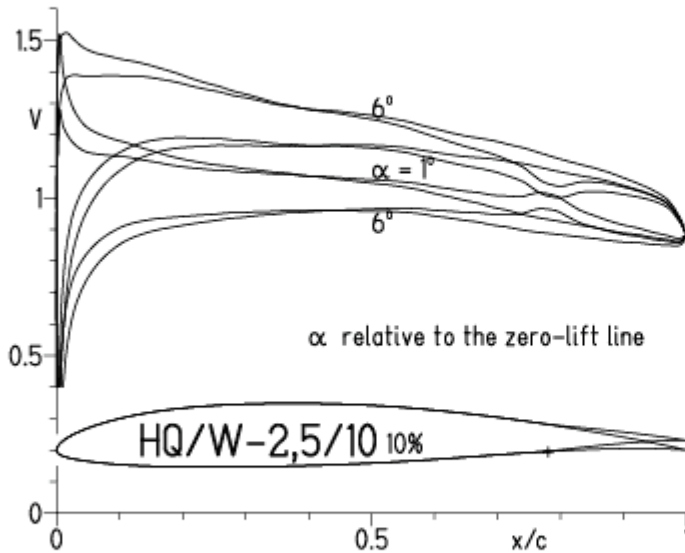
- Re = 75 000, Turb. upper 48% e^N, N=9
- - - 0.15x10⁶, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 75 000, Turb. upper 48% e^N, N=9
- · - 22% Flap 4°, Re = 0.15x10⁶, Turb. upper 48% e^N, N=9

- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



HQ/W-2,5/10, N=11 mit -4° Wölbklappenausschlag
 (F3J-Modelle mit 30 g/dm^2 erreichen damit ca. 30 m/s Höchstgeschwindigkeit)

EPPLER 2005 V. 8.5.07 RUN 17.3.11 18:30



EPPLER 2005 V. 8.5.07 RUN 17.

