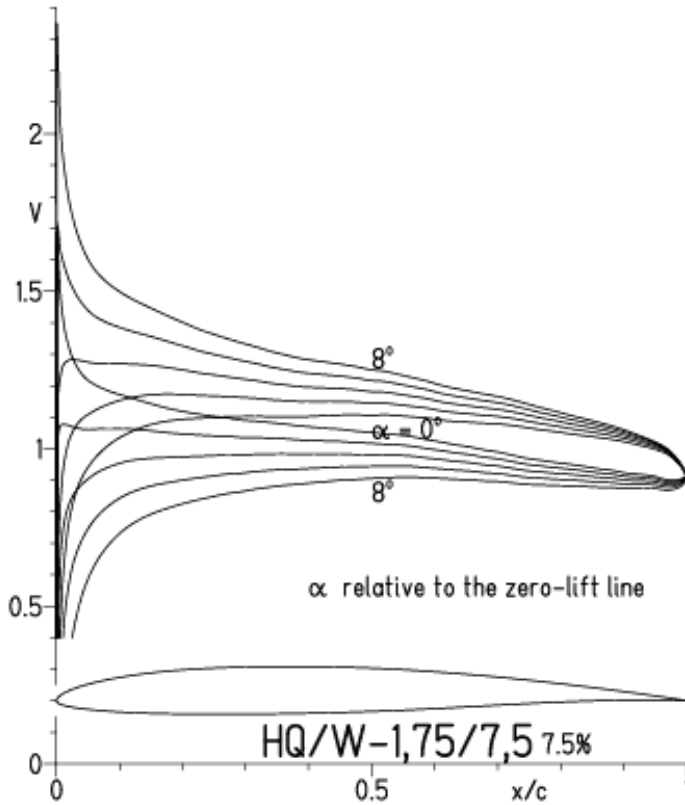


HQ/W-1,75/7,5, N=11

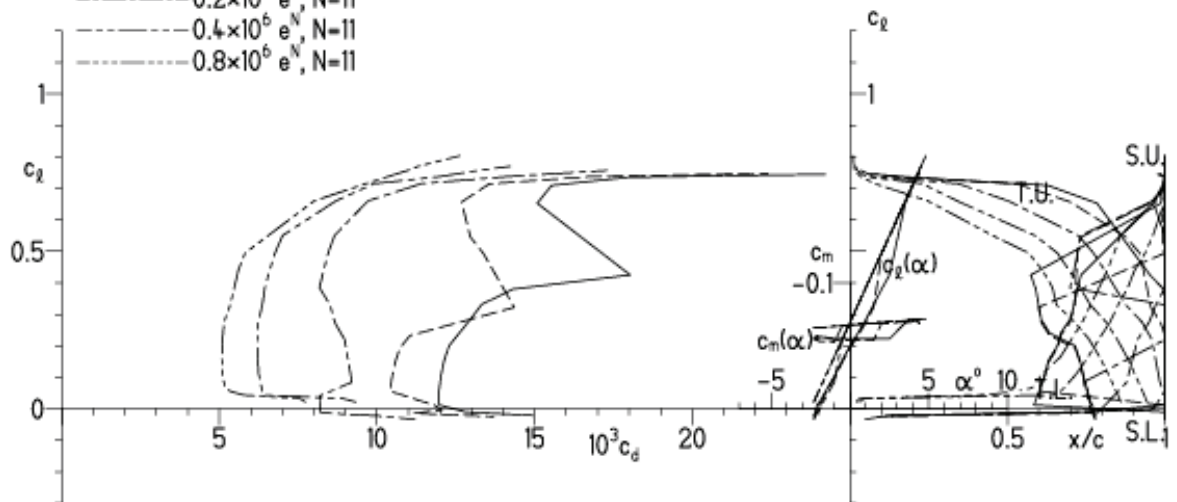
EPPLER 2005 V. 8.5.07 RUN 18.4.11 11:07



EPPLER 2005 V. 8.5.07 RUN 18.4.11 11:07

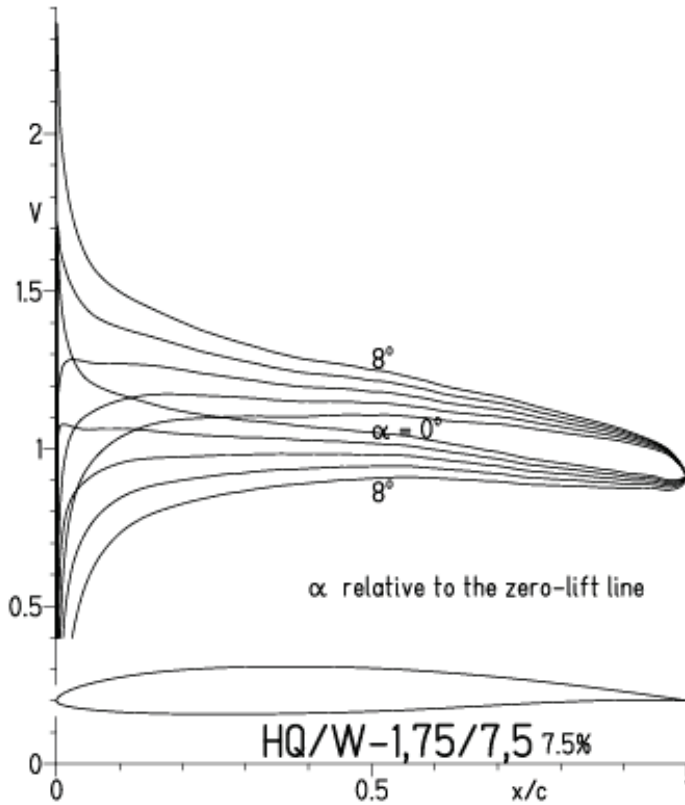
HQ/W-1,75/7,5 7.5%

- $Re = 75\,000 e^N, N=11$
- - - $0.1 \times 10^6 e^N, N=11$
- · - $0.2 \times 10^6 e^N, N=11$
- · · - $0.4 \times 10^6 e^N, N=11$
- · · · - $0.8 \times 10^6 e^N, N=11$



HQ/W-1,75/7,5, N=9

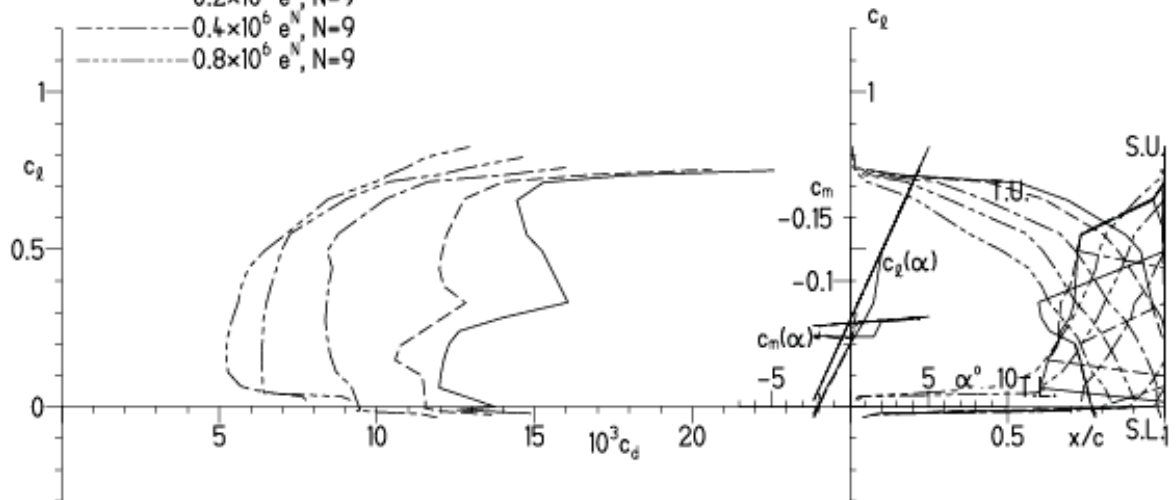
EPPLER 2005 V. 8.5.07 RUN 18.4.11 11:15



EPPLER 2005 V. 8.5.07 RUN 18.4.11 11:15

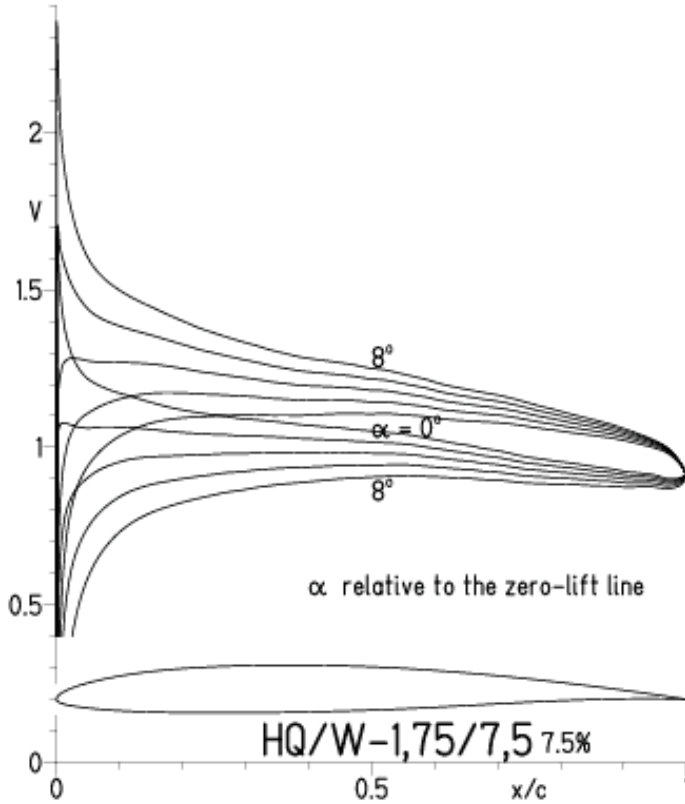
HQ/W-1,75/7,5 7.5%

- $Re = 75\,000 e^N, N=9$
- - - $0.1 \times 10^6 e^N, N=9$
- · - $0.2 \times 10^6 e^N, N=9$
- · · - $0.4 \times 10^6 e^N, N=9$
- · · · - $0.8 \times 10^6 e^N, N=9$



HQ/W-1,75/7,5, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

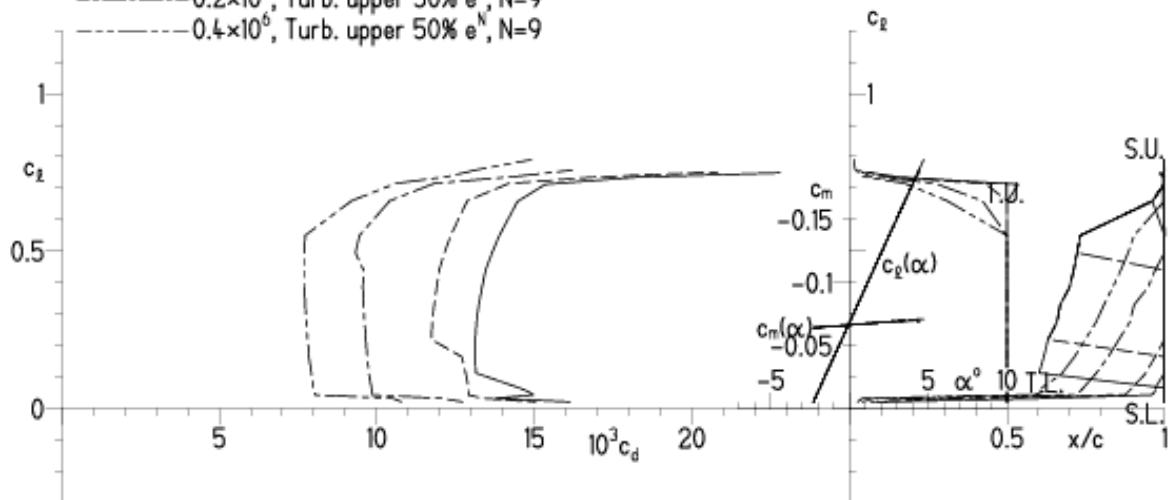
EPPLER 2005 V. 8.5.07 RUN 18.4.11 11:55



EPPLER 2005 V. 8.5.07 RUN 18.4.11 11:55

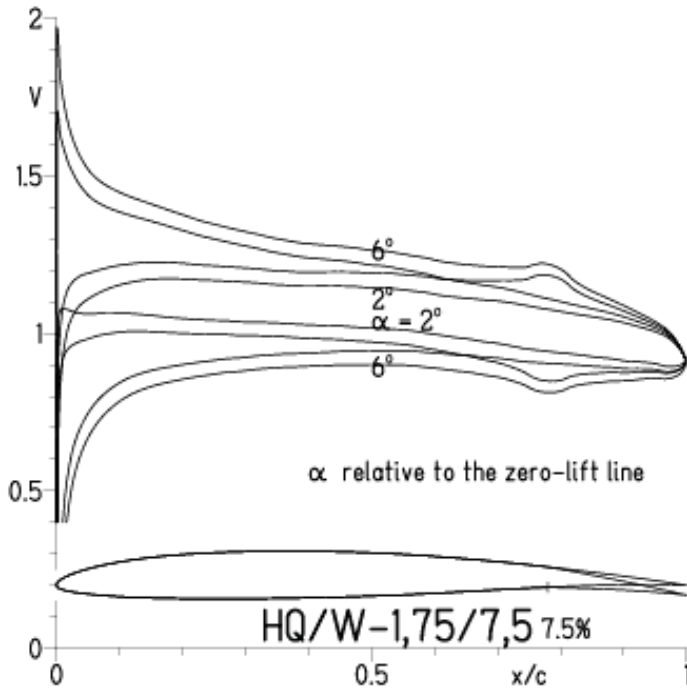
HQ/W-1,75/7,5 7.5%

- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.1×10^6 , Turb. upper 50% e^N , $N=9$
- · - 0.2×10^6 , Turb. upper 50% e^N , $N=9$
- - - 0.4×10^6 , Turb. upper 50% e^N , $N=9$



HQ/W-1,75/7,5, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 18.4.11 12:20

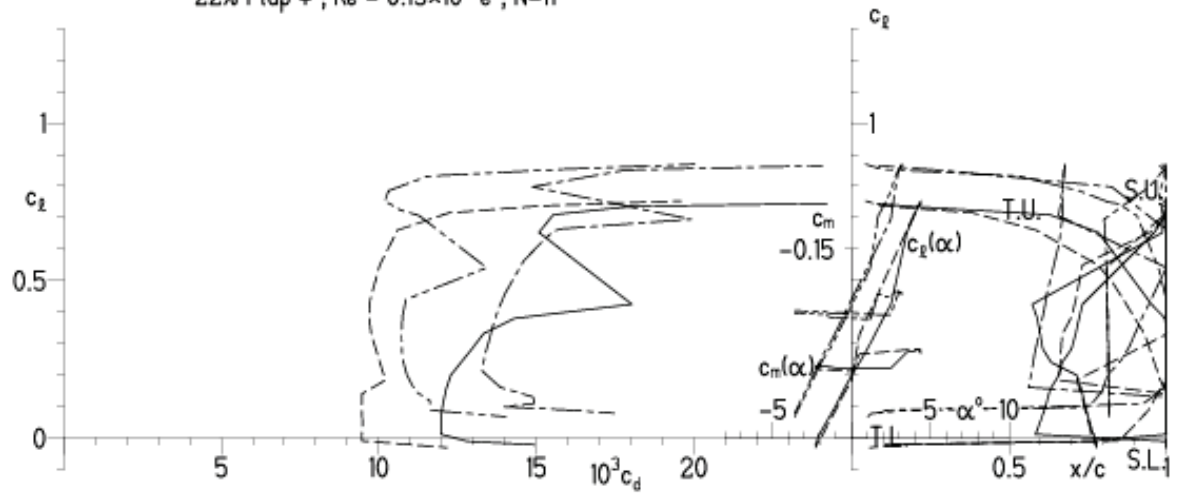


EPPLER 2005 V. 8.5.07 RUN 1

HQ/W-1,75/7,5 7.5%

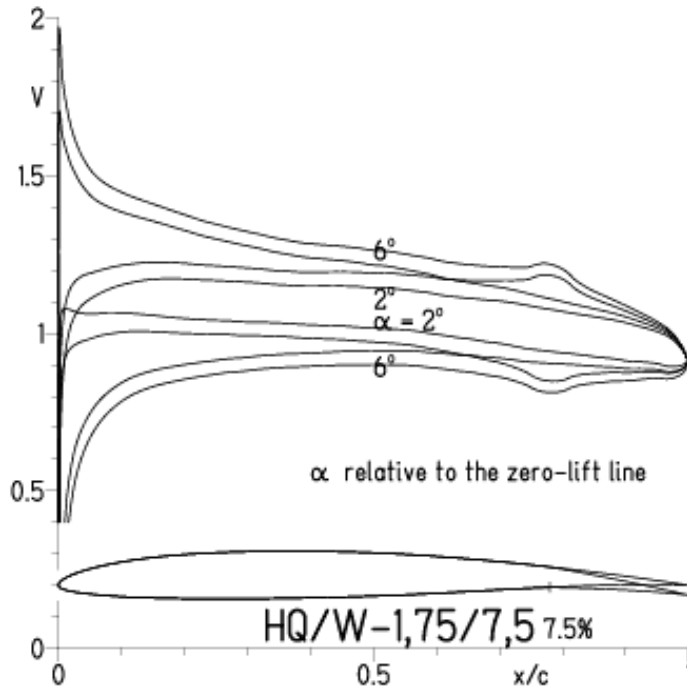
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

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



HQ/W-1,75/7,5, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 18.4.11 12:27

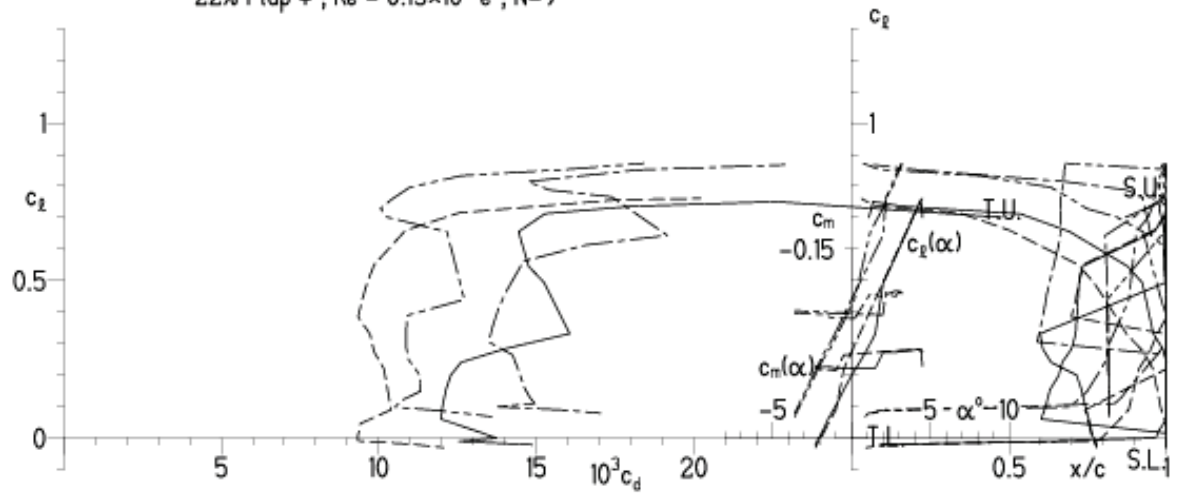


EPPLER 2005 V. 8.5.07 RUN 18.4.11 12:27

HQ/W-1,75/7,5 7.5%

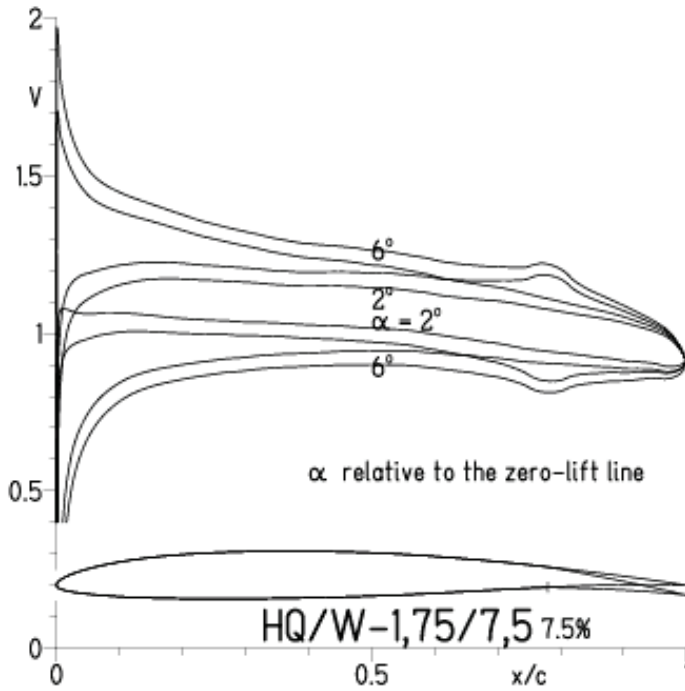
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

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



HQ/W-1,75/7,5, N=9, mit +4° Wölbklappenausschlag Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 18.4.11 12:32

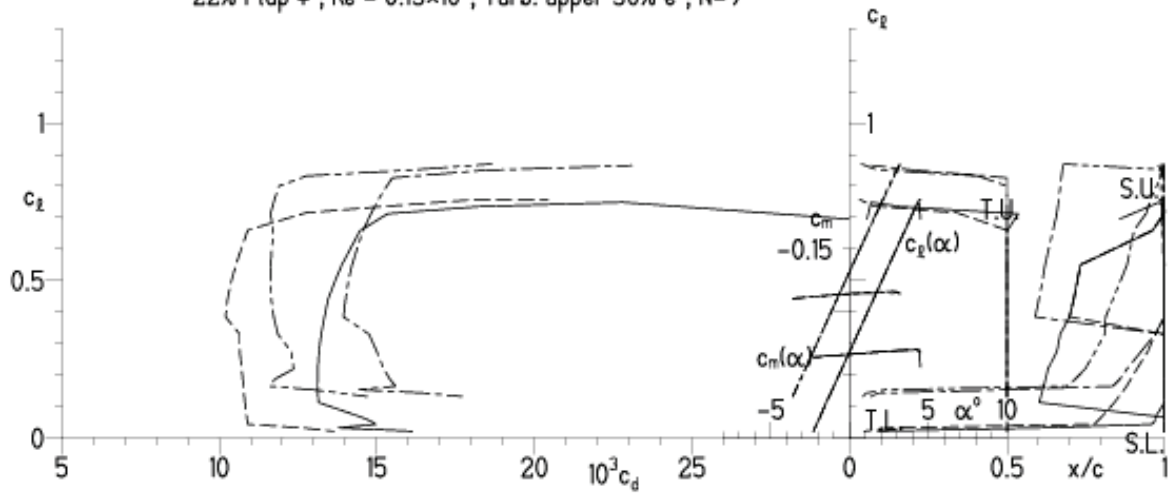


EPPLER 2005 V. 8.5.07 RUN 18.4.11 12:32

HQ/W-1,75/7,5 7.5%

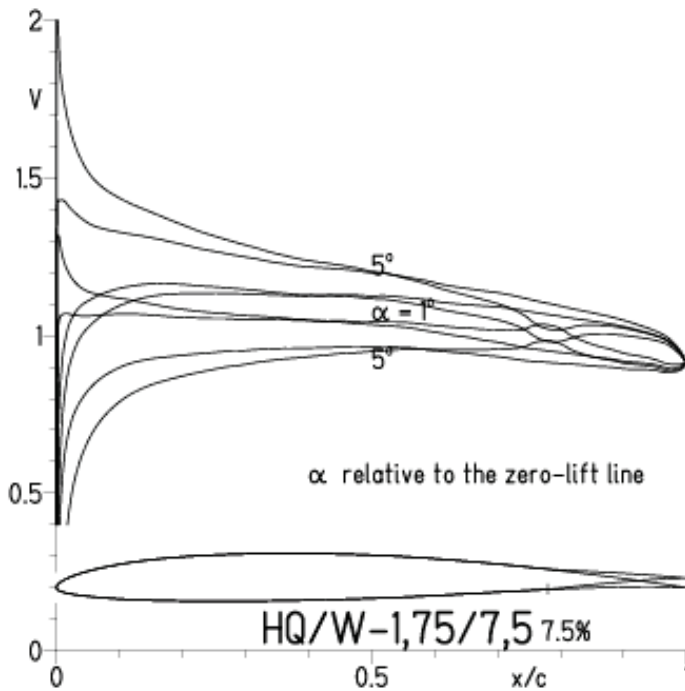
- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.15×10^6 , Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 0.15 \times 10^6$, Turb. upper 50% e^N , $N=9$

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



HQ/W-1,75/7,5, N=11, mit -4° Wölbklappenausschlag
(F3B/F3F-Modelle mit 50 g/dm^2 erreichen damit gut über 300 km/h Höchstgeschwindigkeit)

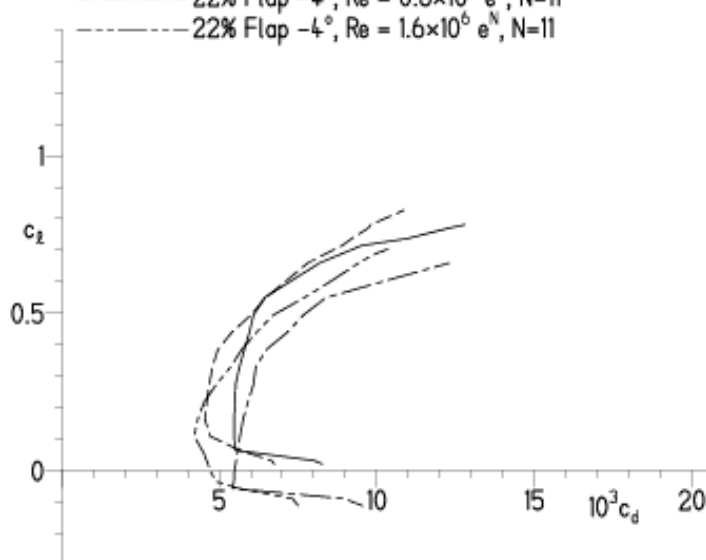
EPPLER 2005 V. 8.5.07 RUN 18.4.11 13:18



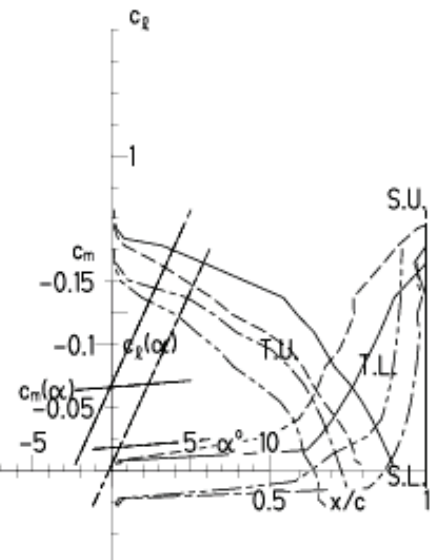
EPPLER 2005 V. 8.5.07 RUN 18.4.11 13:18

HQ/W-1,75/7,5 7.5%

- $Re = 0.6 \times 10^6 e^N, N=11$
- - - $1.6 \times 10^6 e^N, N=11$
- · - $22\% \text{ Flap } -4^\circ, Re = 0.6 \times 10^6 e^N, N=11$
- · - $22\% \text{ Flap } -4^\circ, Re = 1.6 \times 10^6 e^N, N=11$

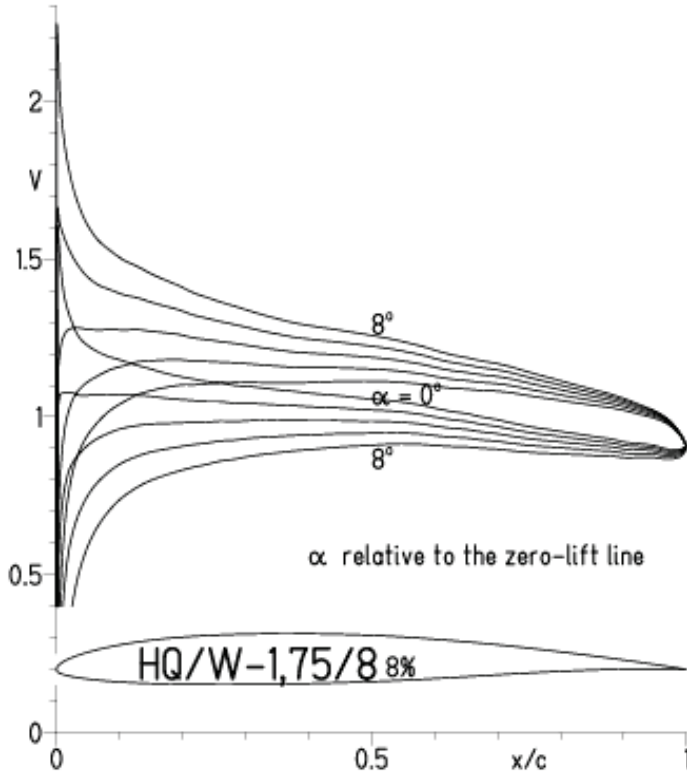


- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

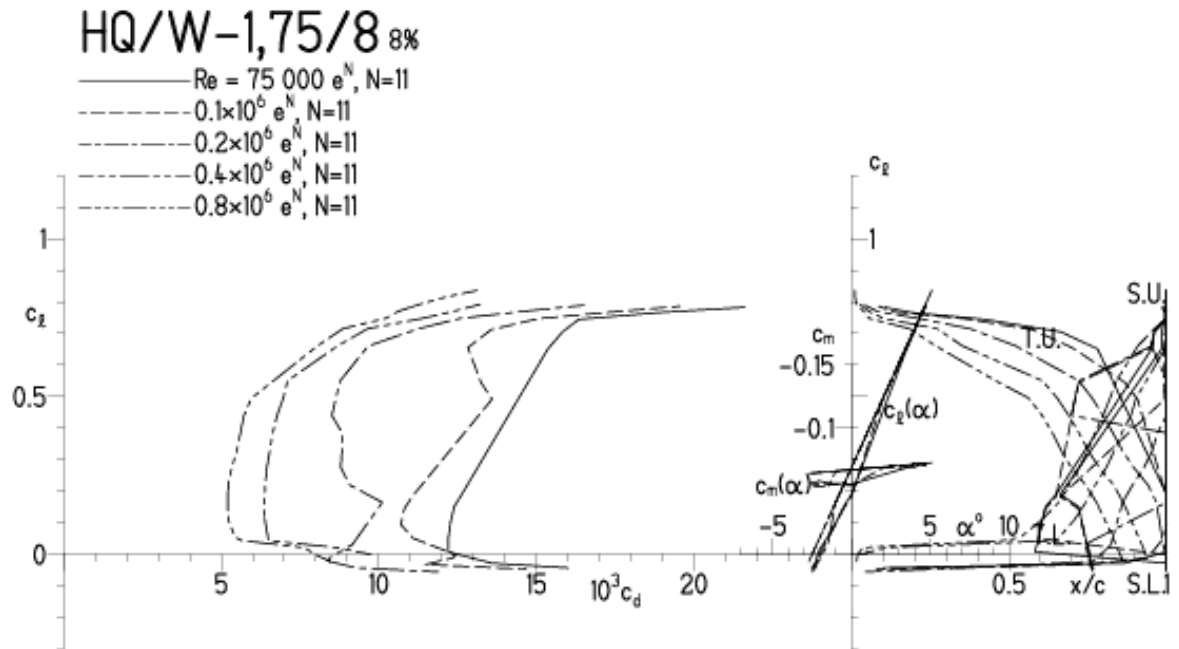


HQ/W-1,75/8, N=11

EPPLER 2005 V. 8.5.07 RUN 18.4.11 17:01

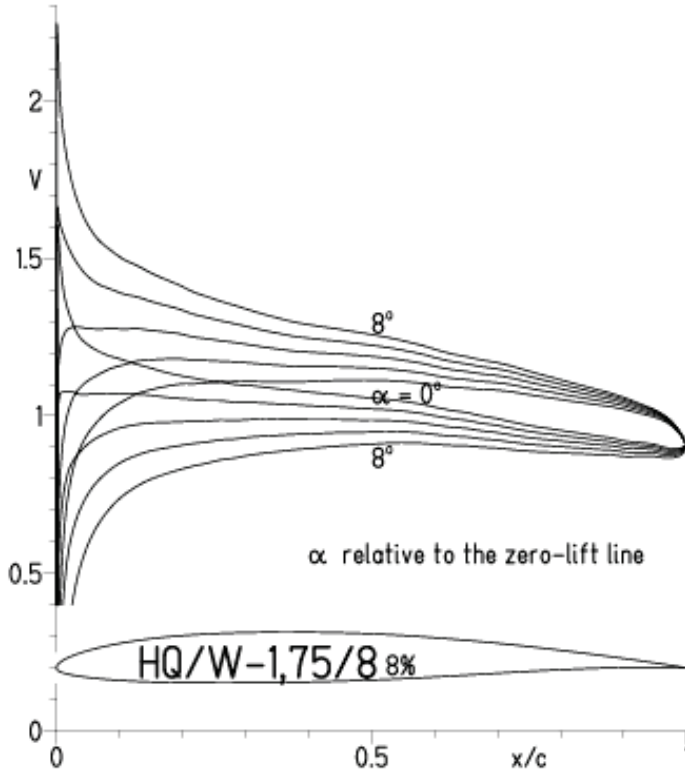


EPPLER 2005 V. 8.5.07 RUN 18.4.11 17:01



HQ/W-1,75/8, N=9

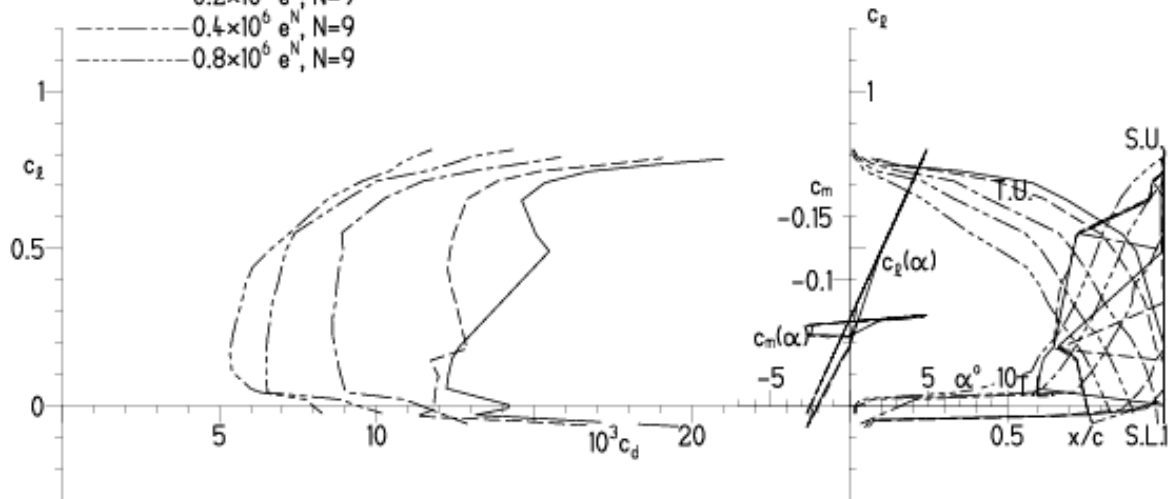
EPPLER 2005 V. 8.5.07 RUN 18.4.11 17:12



EPPLER 2005 V. 8.5.07 RUN 18.4.11 17:12

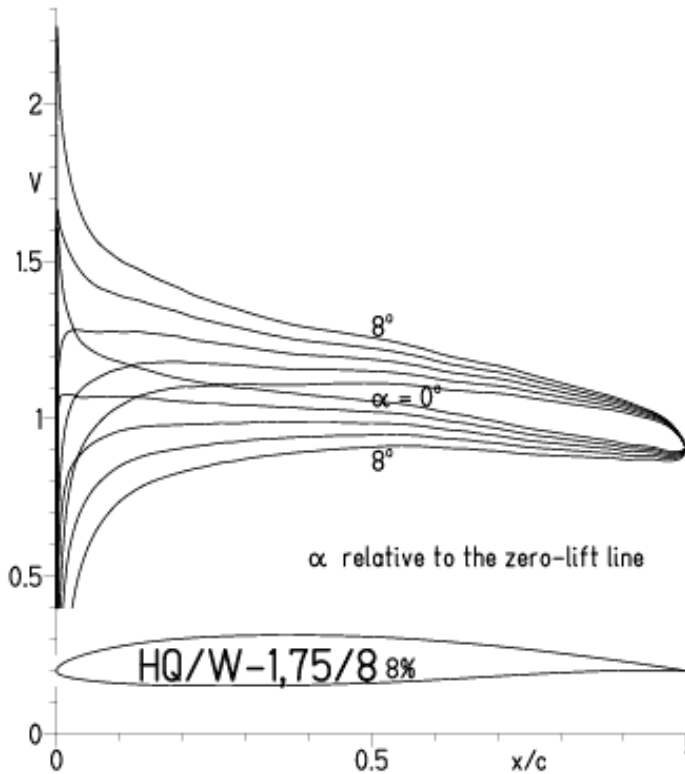
HQ/W-1,75/8 8%

- $Re = 75\,000 e^N, N=9$
- - - $0.1 \times 10^6 e^N, N=9$
- · - $0.2 \times 10^6 e^N, N=9$
- · · - $0.4 \times 10^6 e^N, N=9$
- · · · - $0.8 \times 10^6 e^N, N=9$



HQ/W-1,75/8, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

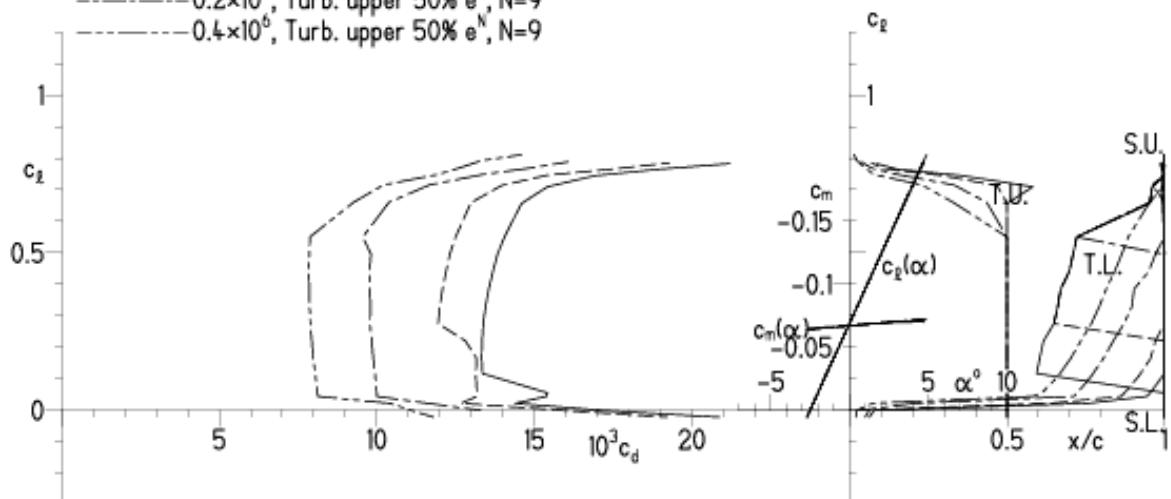
EPPLER 2005 V. 8.5.07 RUN 18.4.11 17:20



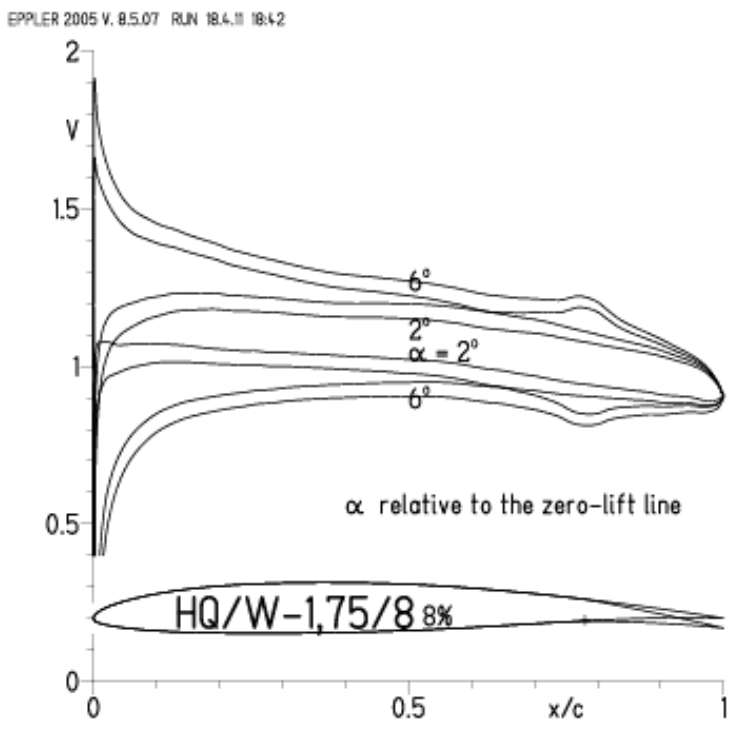
EPPLER 2005 V. 8.5.07 RUN 18.4.11 17:20

HQ/W-1,75/8 8%

- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.1×10^6 , Turb. upper 50% e^N , $N=9$
- · - 0.2×10^6 , Turb. upper 50% e^N , $N=9$
- - - 0.4×10^6 , Turb. upper 50% e^N , $N=9$



HQ/W-1,75/8, N=11, mit +4° Wölbklappenausschlag

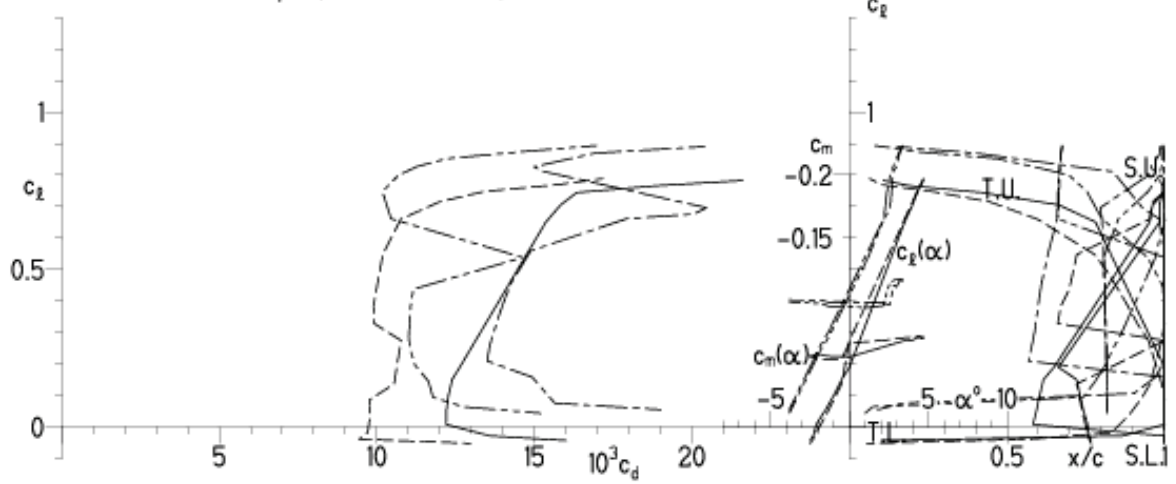


EPPLER 2005 V. 8.5.07 RUN 18.4.11 18:42

HQ/W-1,75/8 8%

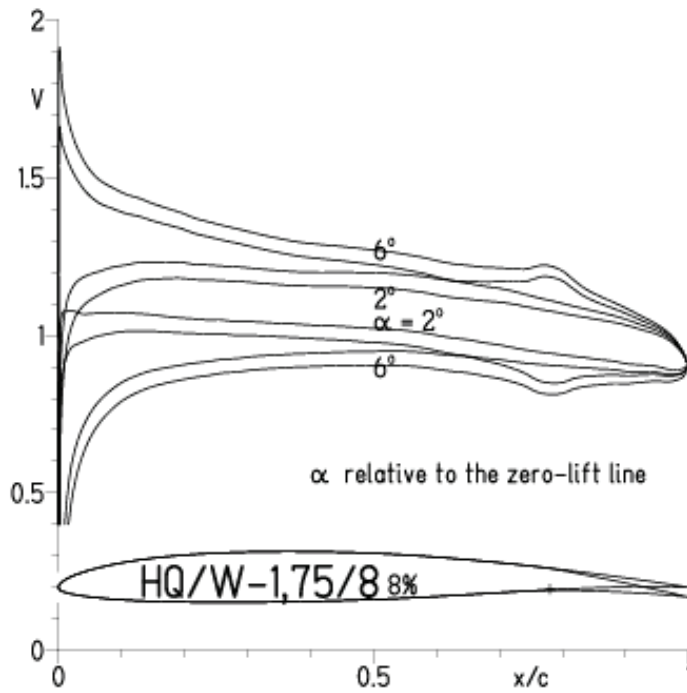
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

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



HQ/W-1,75/8, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 18.4.11 18:47

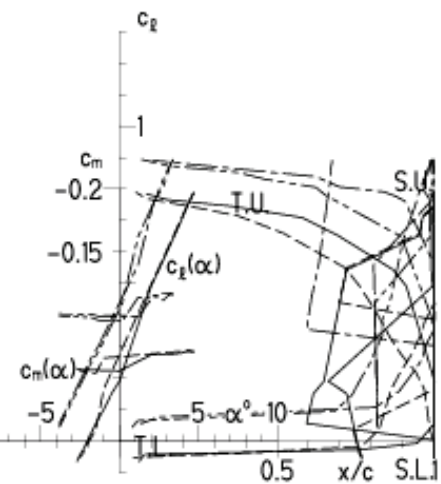
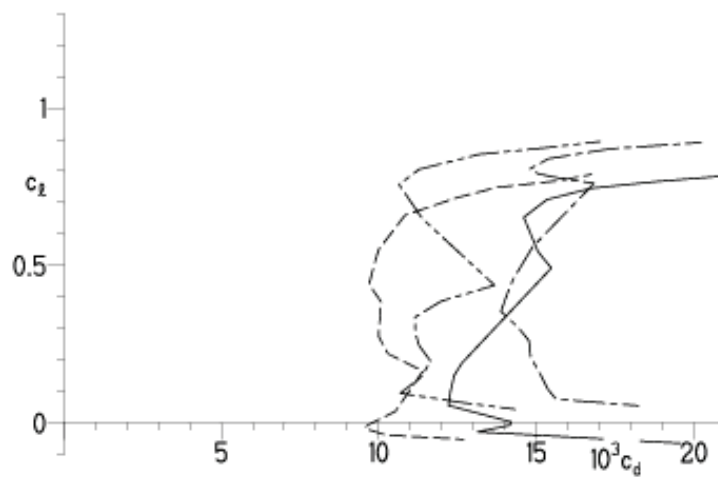


EPPLER 2005 V. 8.5.07 RUN 18.4.11 18:47

HQ/W-1,75/8 8%

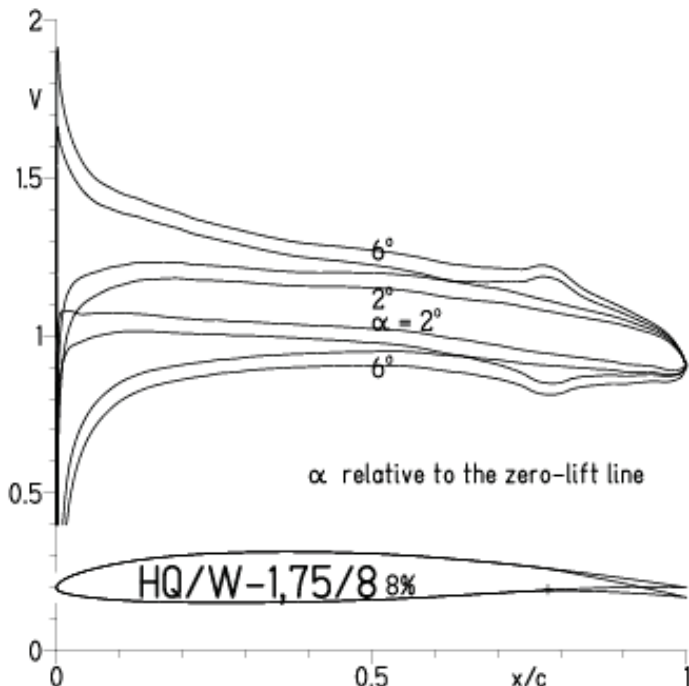
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

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



HQ/W-1,75/8, N=9, mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 18.4.11 18:51

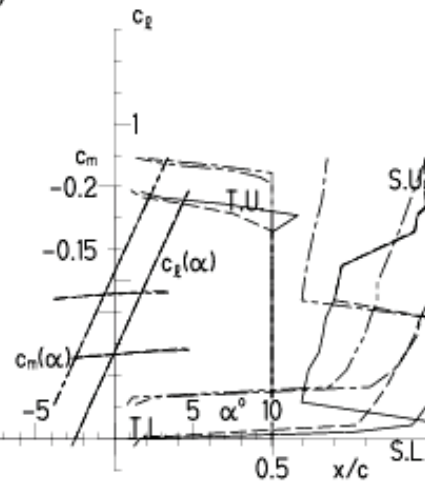
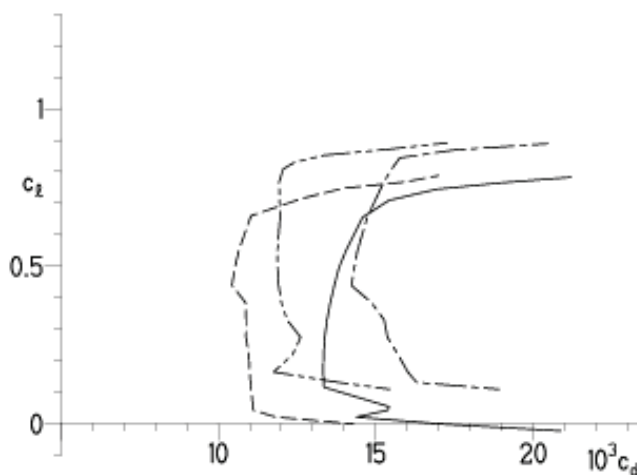


EPPLER 2005 V. 8.5.07 RUN 18.4.11 18:51

HQ/W-1,75/8 8%

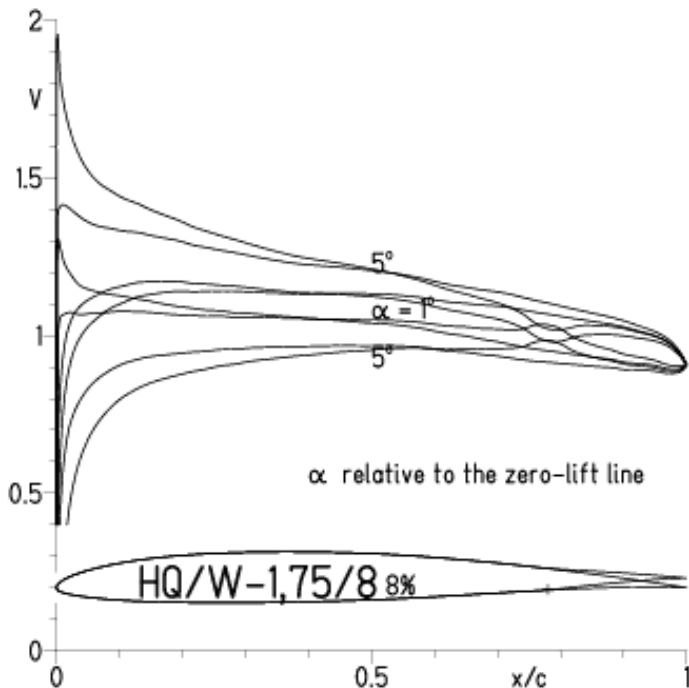
- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.15×10^6 , Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 0.15 \times 10^6$, Turb. upper 50% e^N , $N=9$

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



HQ/W-1,75/8, N=11, mit -4° Wölbklappenausschlag
 (F3B/F3F-Modelle mit 50 g/dm^2 erreichen damit gut über 300 km/h Höchstgeschwindigkeit)

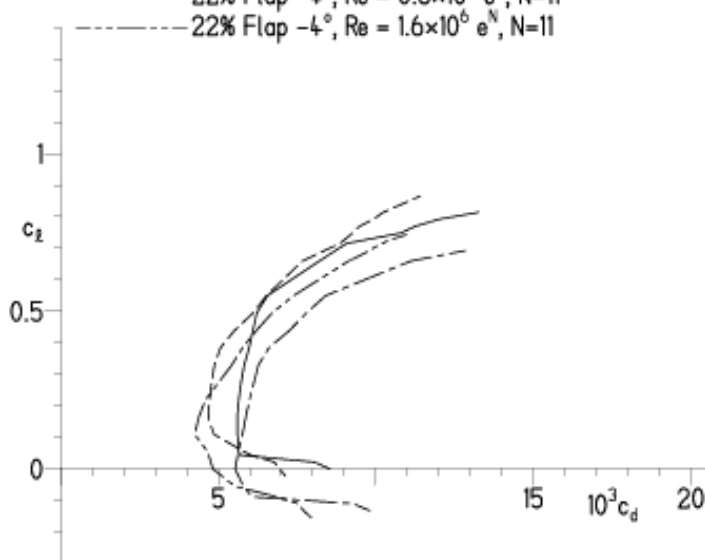
EPPLER 2005 V. 8.5.07 RUN 19.4.11 12:26



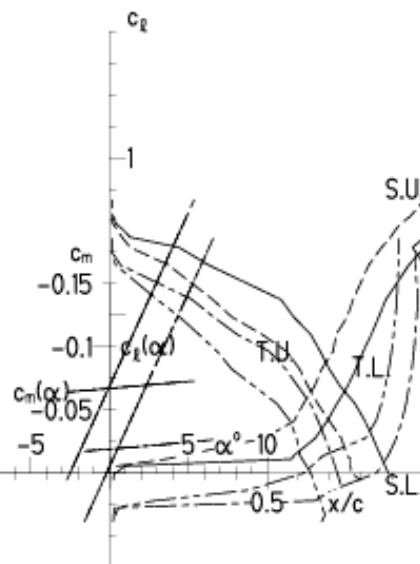
EPPLER 2005 V. 8.5.07 RUN 19.4.11 12:26

HQ/W-1,75/8 8%

- $Re = 0.6 \times 10^6 e^N, N=11$
- - - $1.6 \times 10^6 e^N, N=11$
- · - $22\% \text{ Flap } -4^\circ, Re = 0.6 \times 10^6 e^N, N=11$
- · - $22\% \text{ Flap } -4^\circ, Re = 1.6 \times 10^6 e^N, N=11$

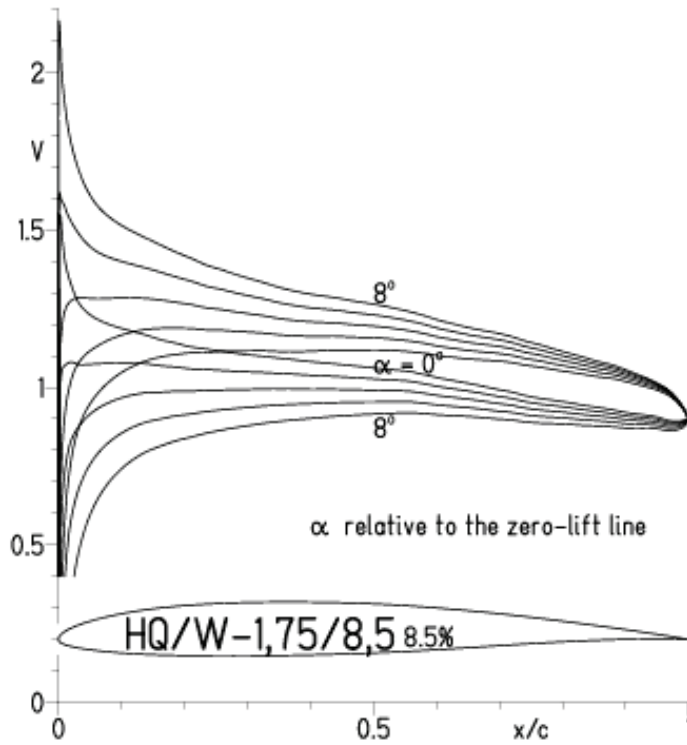


- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface



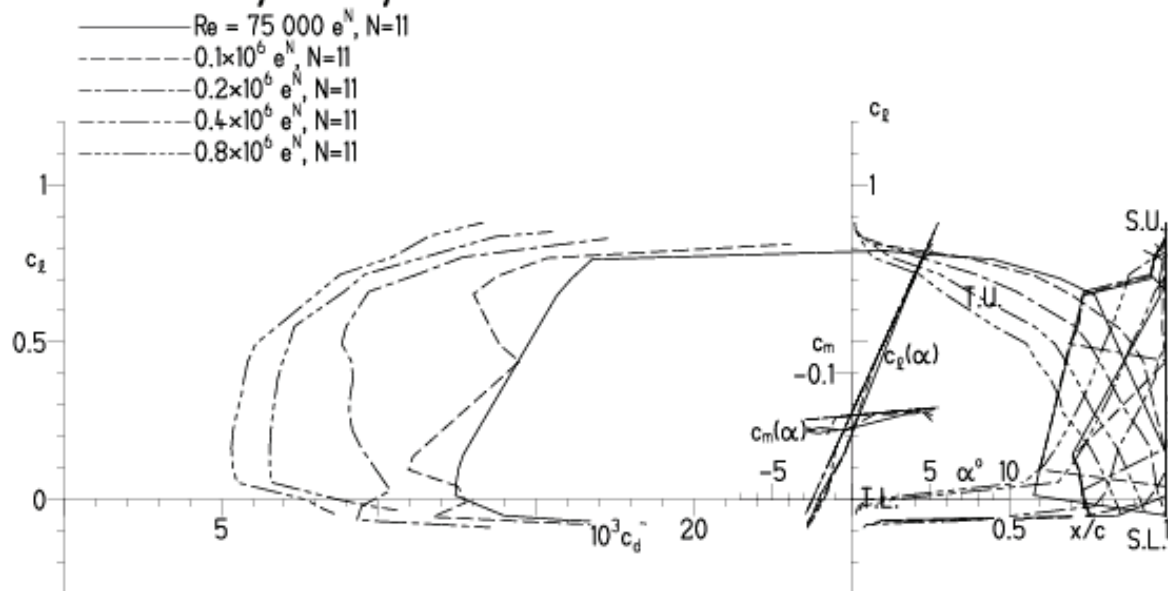
HQ/W-1,75/8,5, N=11

EPPLER 2005 V. 8.5.07 RUN 19.4.11 12:56



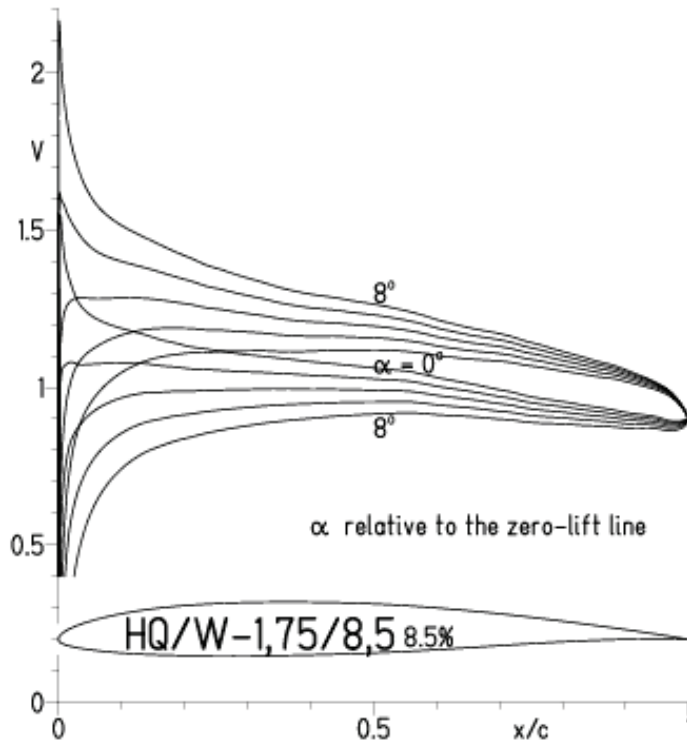
EPPLER 2005 V. 8.5.07 RUN 19.4.11 12:56

HQ/W-1,75/8,5 8.5%



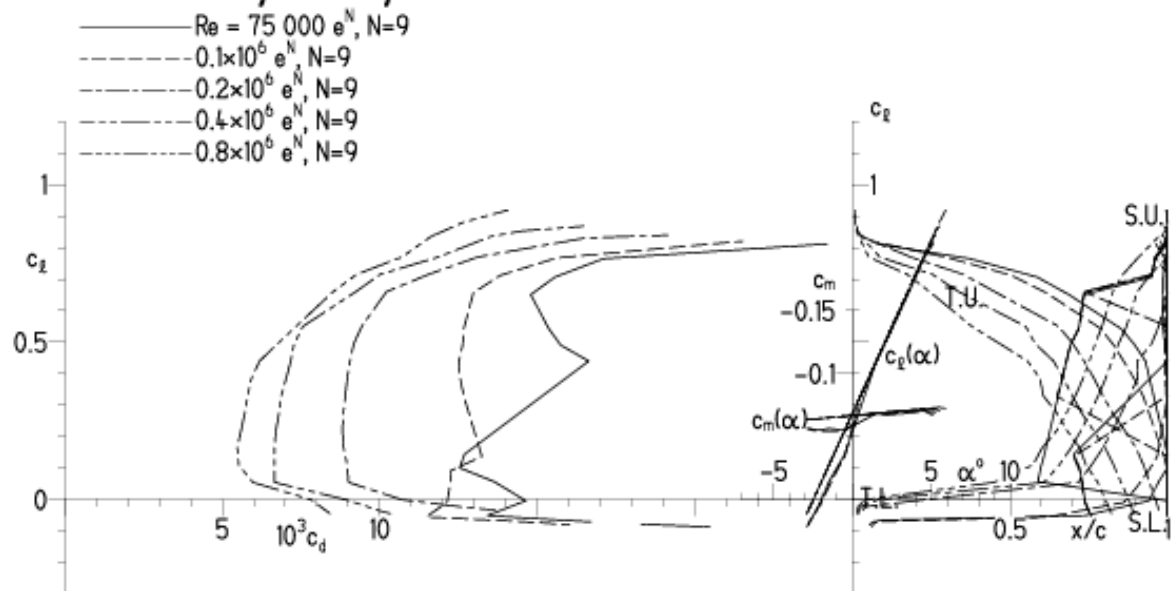
HQ/W-1,75/8,5, N=9

EPPLER 2005 V. 8.5.07 RUN 19.4.11 13:06



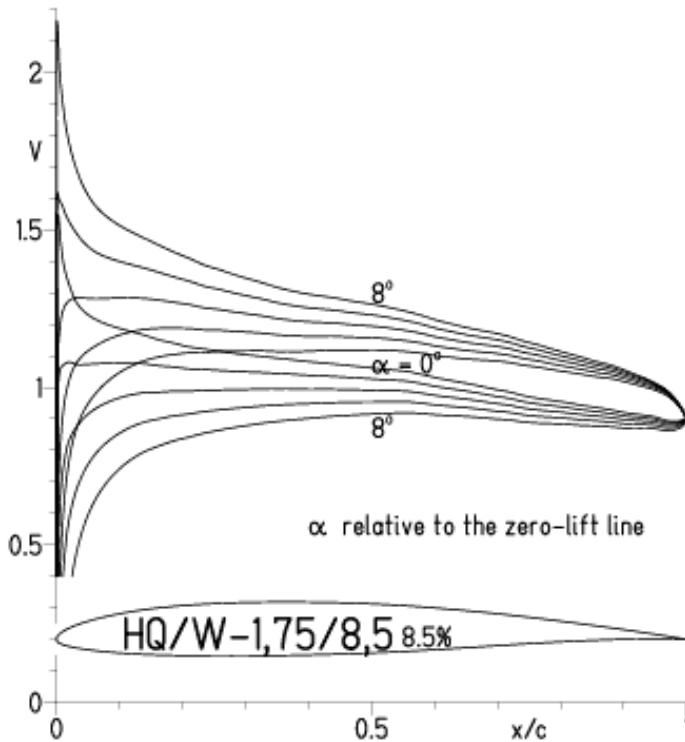
EPPLER 2005 V. 8.5.07 RUN 19.4.11 13:06

HQ/W-1,75/8,5 8.5%



HQ/W-1,75/8,5, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

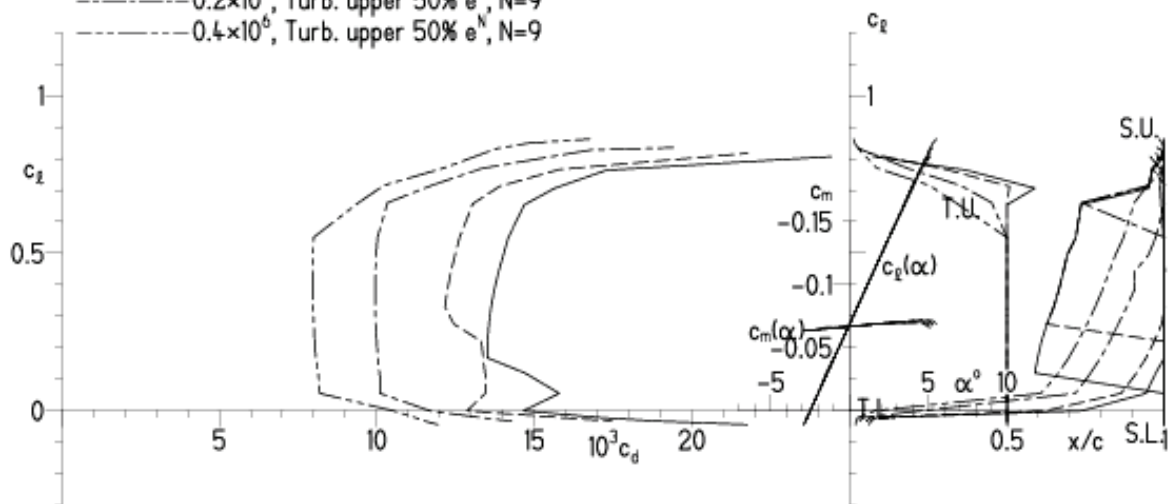
EPPLER 2005 V. 8.5.07 RUN 19.4.11 13:10



EPPLER 2005 V. 8.5.07 RUN 19.4.11 13:10

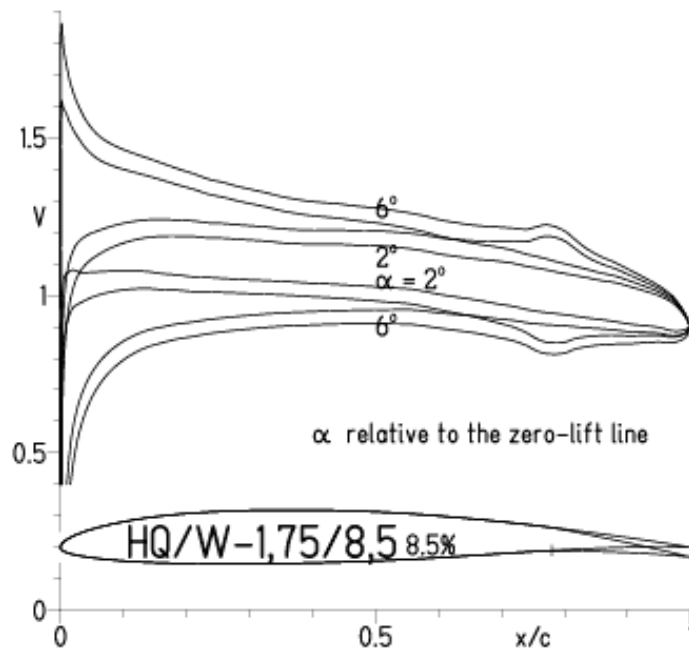
HQ/W-1,75/8,5 8.5%

- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.1×10^6 , Turb. upper 50% e^N , $N=9$
- · - 0.2×10^6 , Turb. upper 50% e^N , $N=9$
- - - 0.4×10^6 , Turb. upper 50% e^N , $N=9$



HQ/W-1,75/8,5, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 20.4.11 16:27

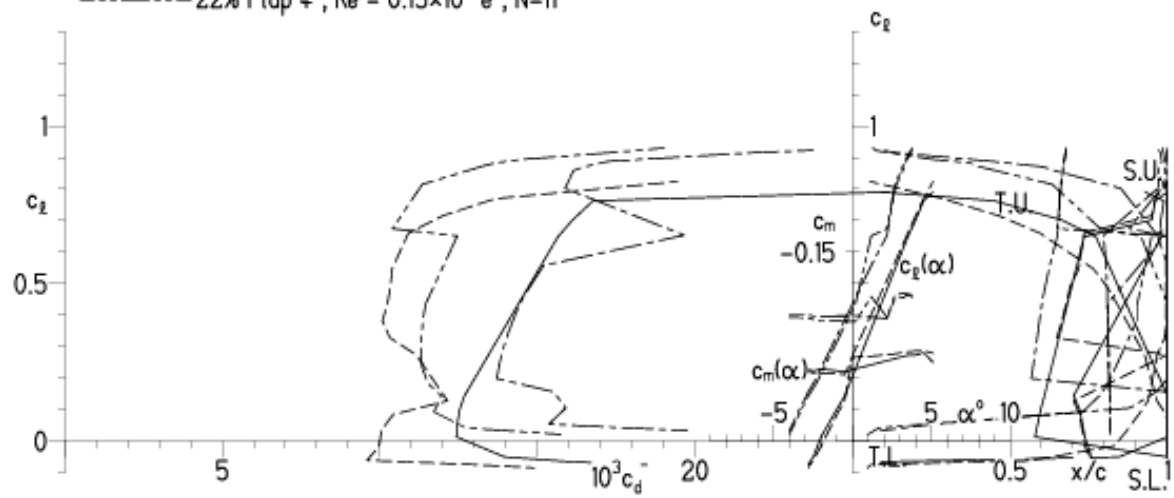


EPPLER 2005 V. 8.5.07 RUN 20.4.11 16:27

HQ/W-1,75/8,5 8.5%

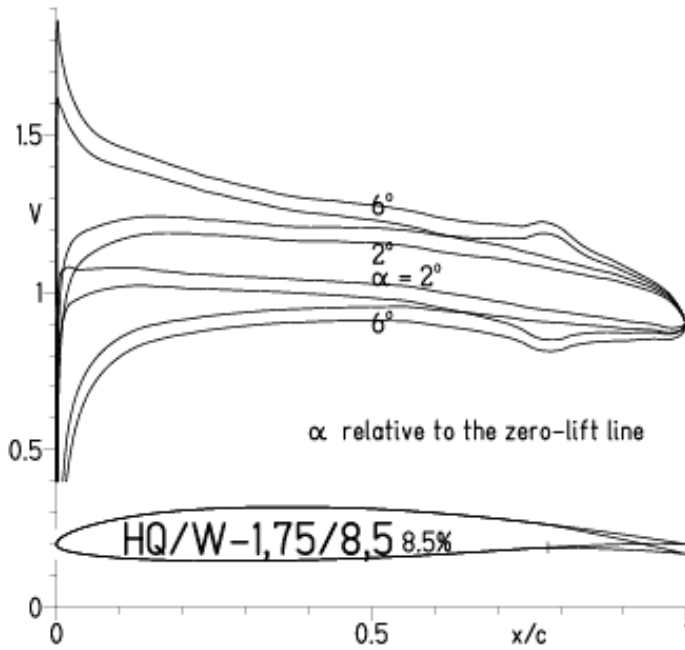
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

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



HQ/W-1,75/8,5, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 20.4.11 16:31

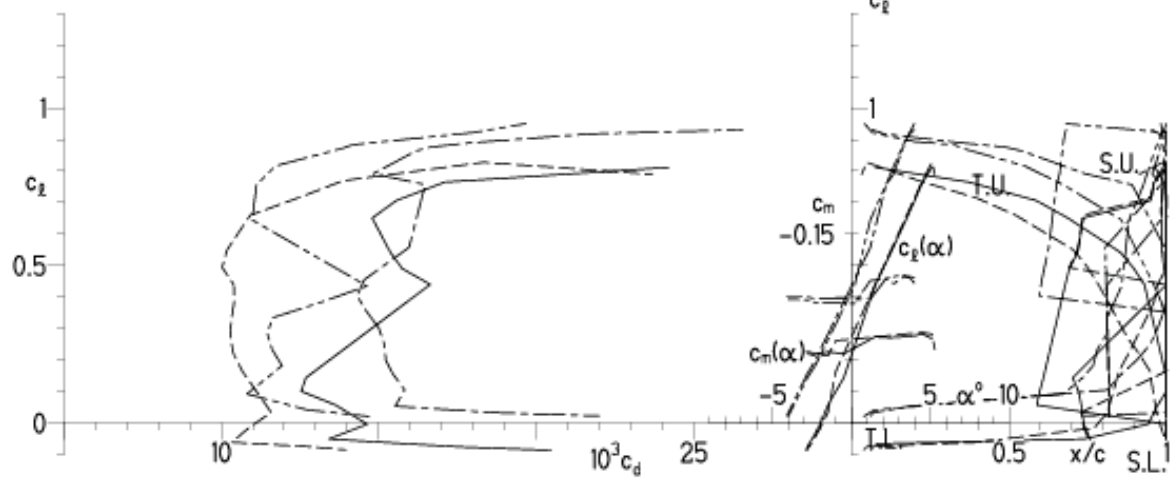


EPPLER 2005 V. 8.5.07 RUN 20.4.11 16:31

HQ/W-1,75/8,5 8.5%

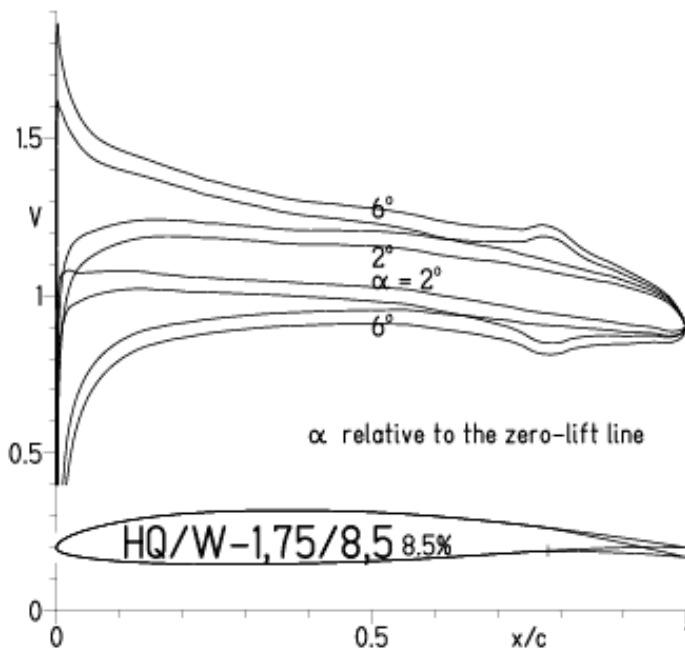
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

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



HQ/W-1,75/8,5, N=9, mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 20.4.11 16:36

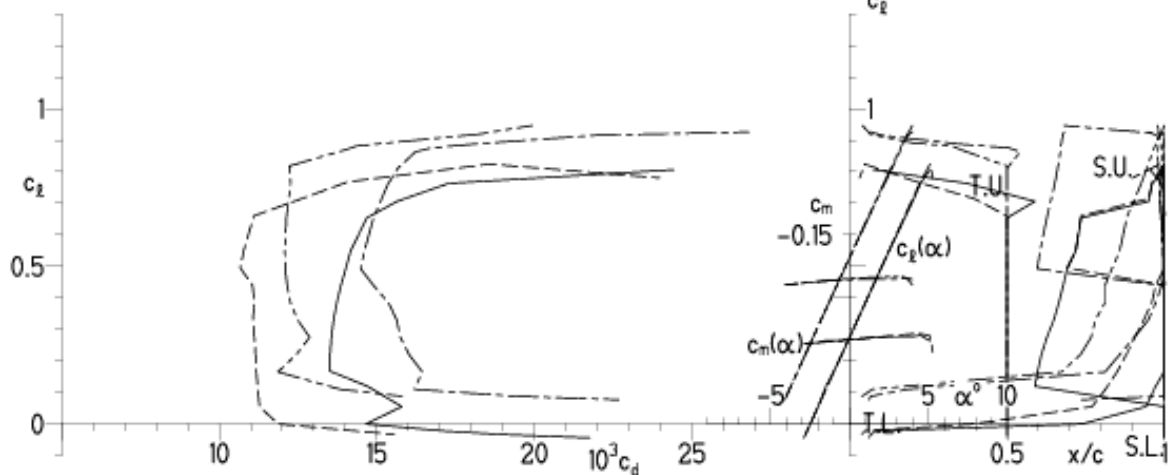


EPPLER 2005 V. 8.5.07 RUN 20.4.11 16:36

HQ/W-1,75/8,5 8.5%

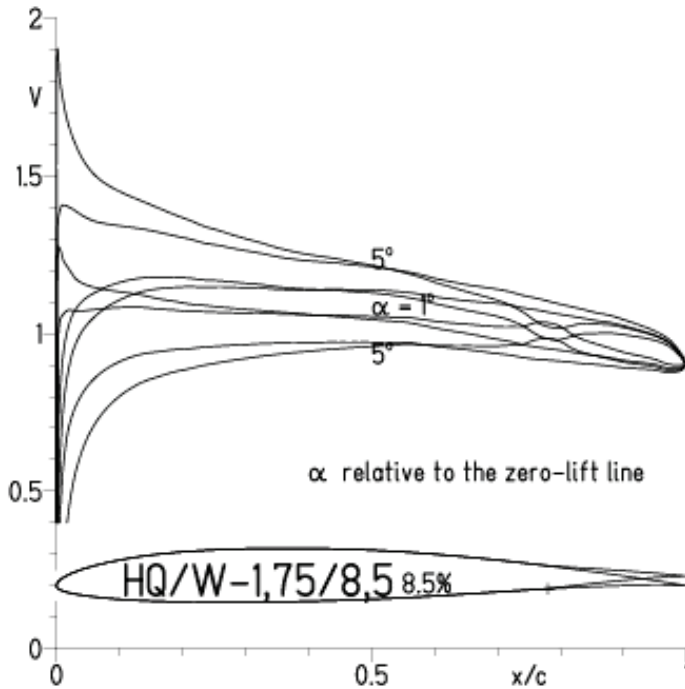
- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.15×10^6 , Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 0.15 \times 10^6$, Turb. upper 50% e^N , $N=9$

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



HQ/W-1,75/8,5, N=11, mit -4° Wölbklappenausschlag
 (F3B/F3F-Modelle mit 50 g/dm^2 erreichen damit gut über 300 km/h Höchstgeschwindigkeit)

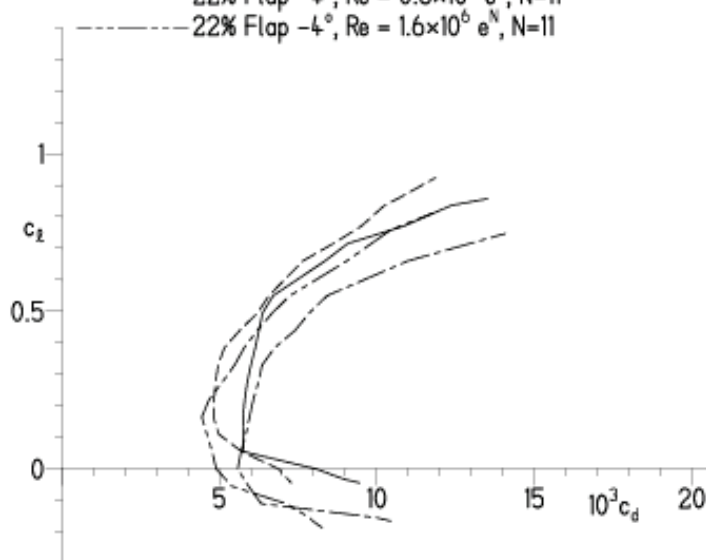
EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:03



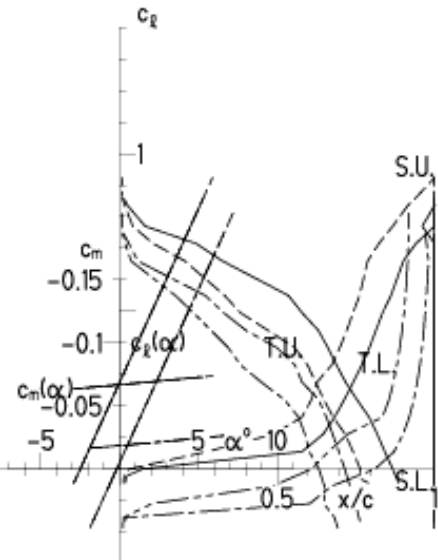
EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:03

HQ/W-1,75/8,5 8.5%

- $Re = 0.6 \times 10^6 e^N, N=11$
- - - $1.6 \times 10^6 e^N, N=11$
- · - · 22% Flap $-4^\circ, Re = 0.6 \times 10^6 e^N, N=11$
- · - · 22% Flap $-4^\circ, Re = 1.6 \times 10^6 e^N, N=11$

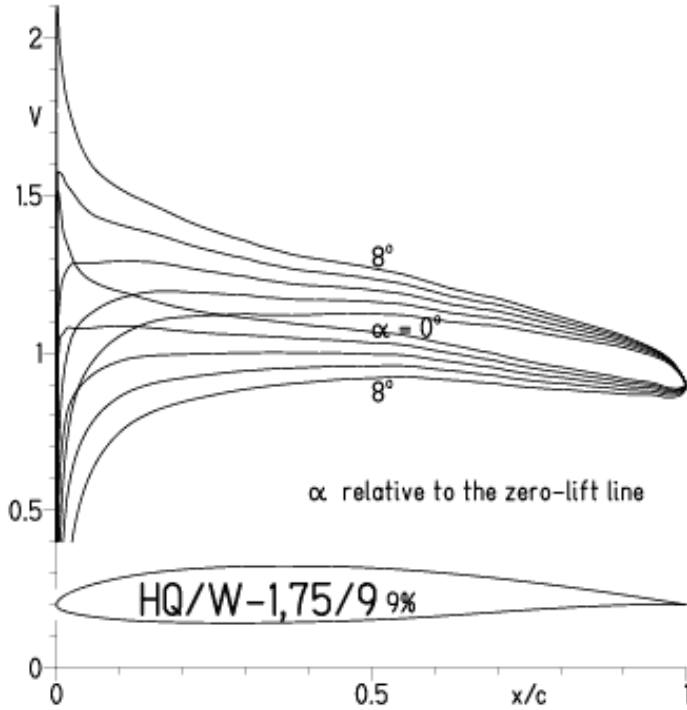


- T. boundary layer transition
- S. boundary layer separation
- U. upper surface
- L. lower surface

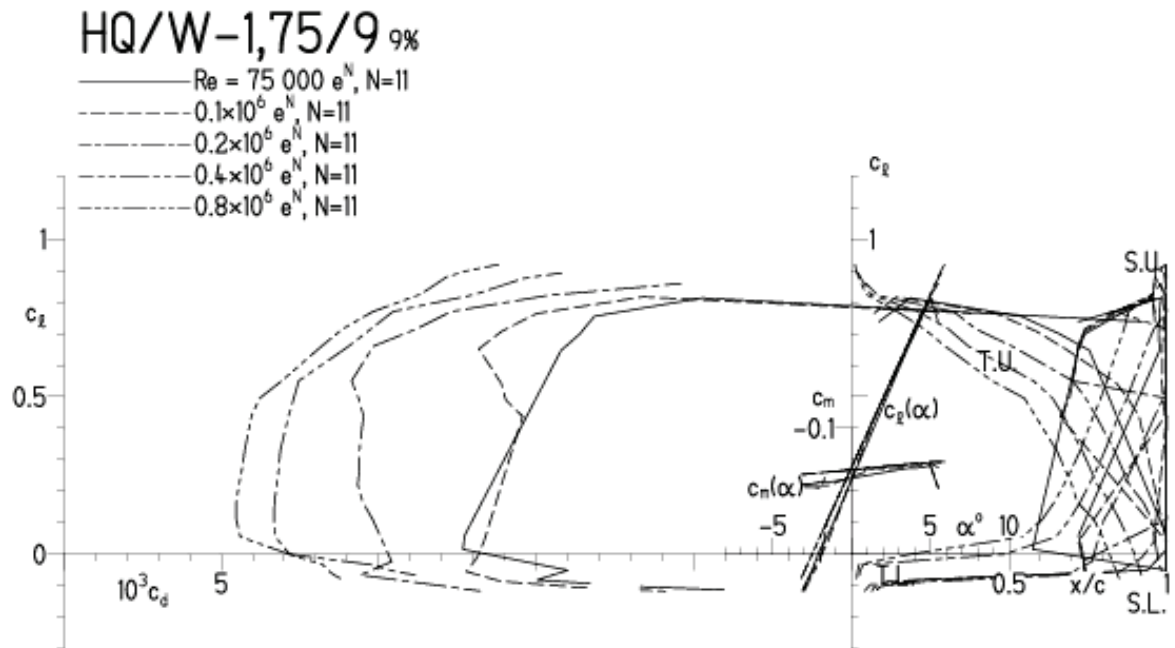


HQ/W-1,75/9, N=11

EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:20

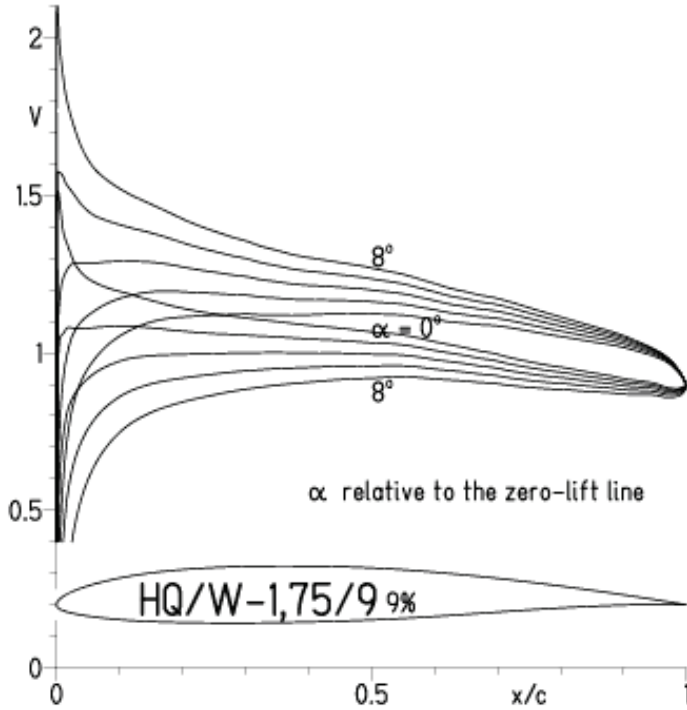


EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:20

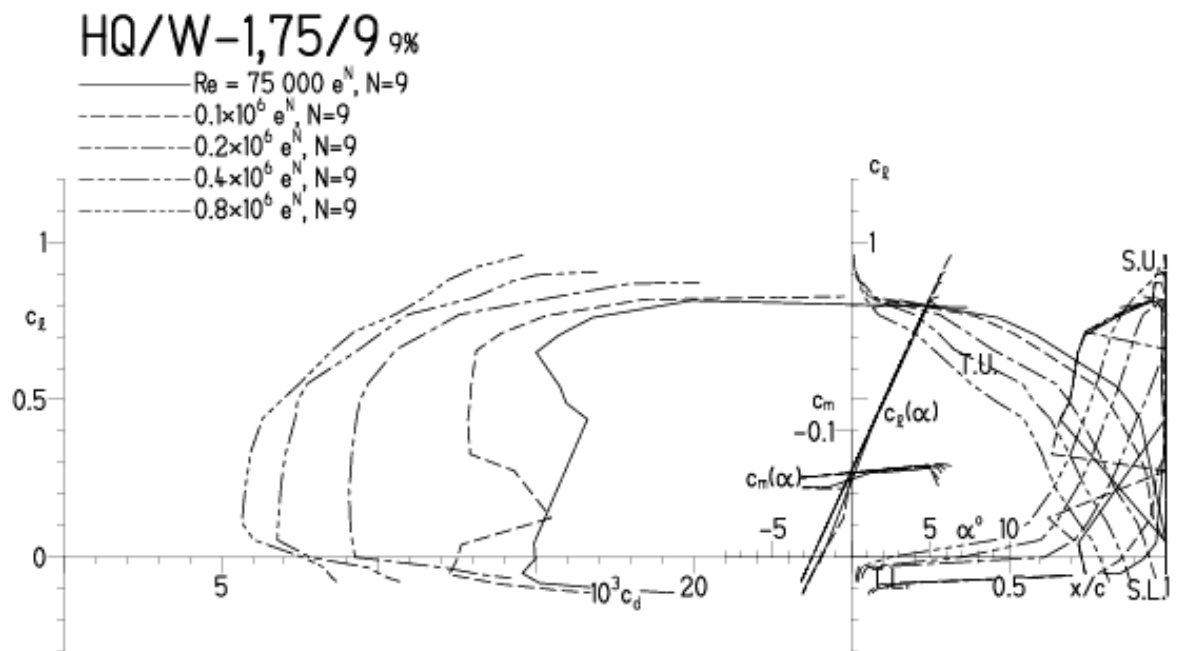


HQ/W-1,75/9, N=9

EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:41

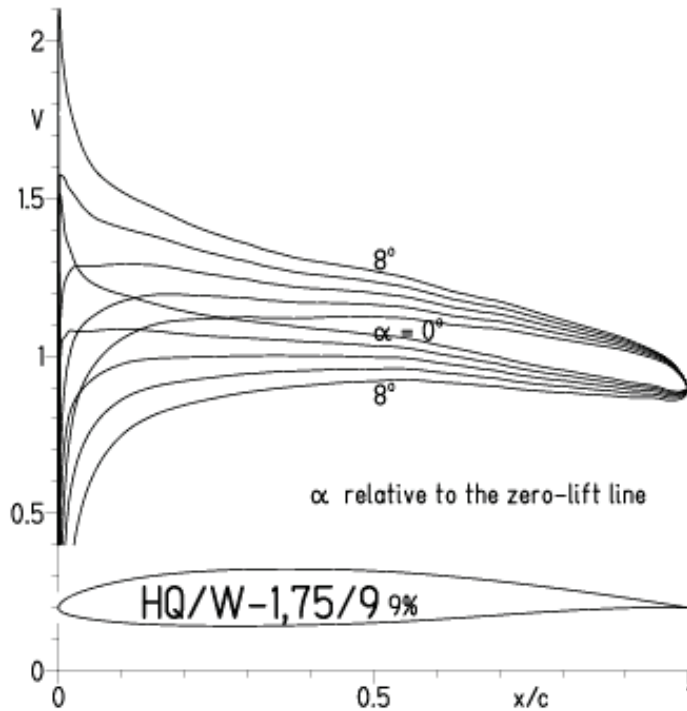


EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:41



HQ/W-1,75/9, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:34



EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:34

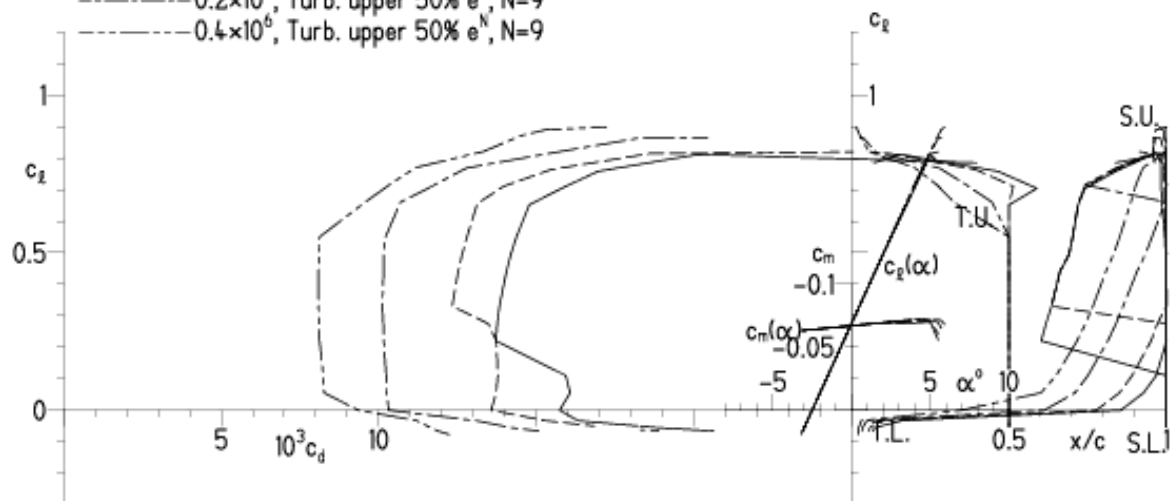
HQ/W-1,75/9 9%

— $Re = 75\,000$, Turb. upper 50% e^N , $N=9$

- - - 0.1×10^6 , Turb. upper 50% e^N , $N=9$

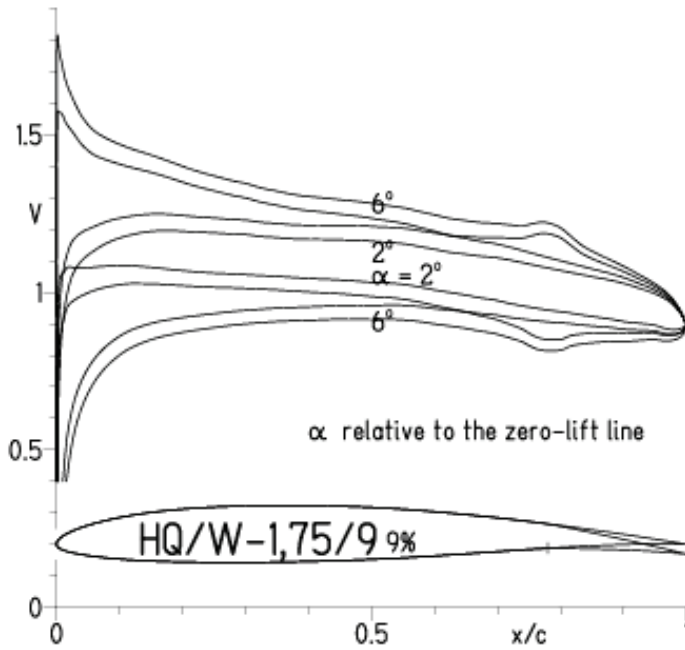
- · - 0.2×10^6 , Turb. upper 50% e^N , $N=9$

- - - 0.4×10^6 , Turb. upper 50% e^N , $N=9$



HQ/W-1,75/9, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:53

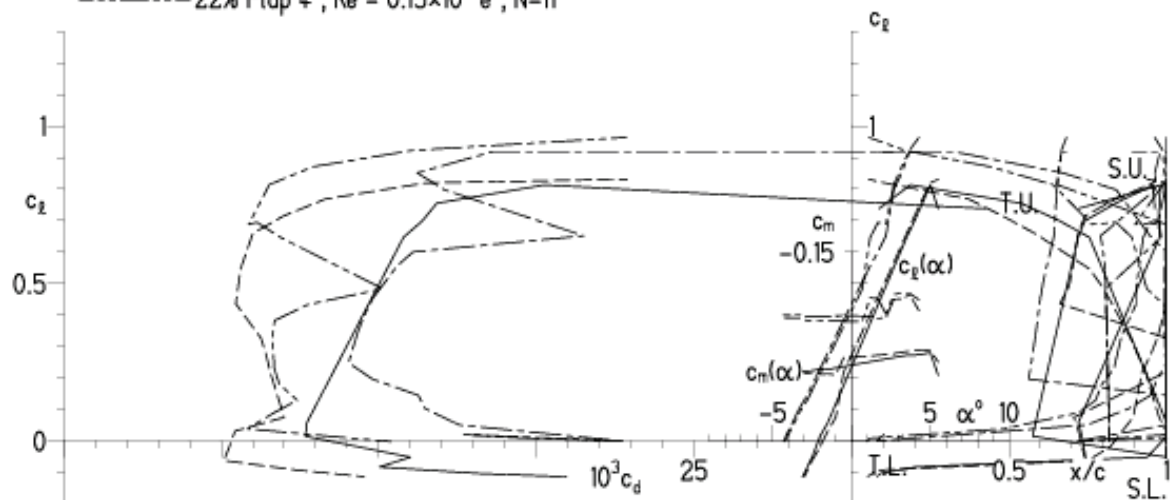


EPPLER 2005 V. 8.5.07 RUN 20.4.11 17:53

HQ/W-1,75/9 9%

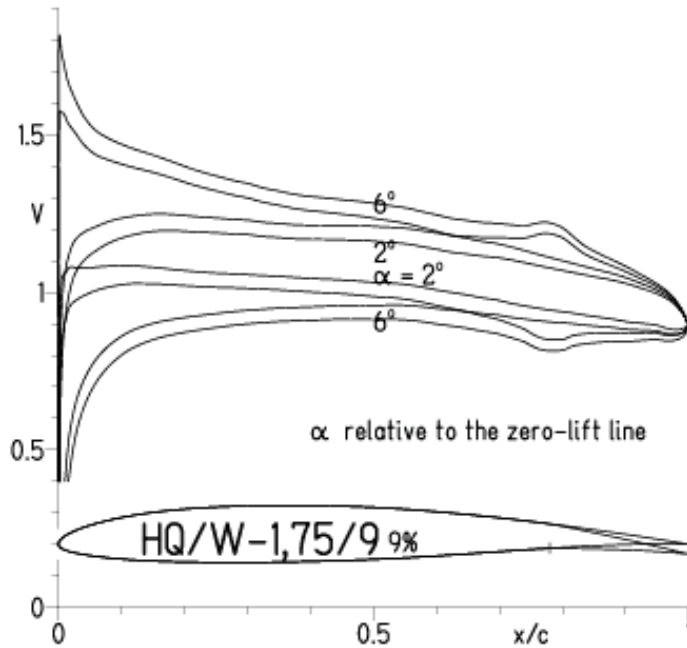
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 75\,000 e^N, N=11$
- · - · - 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=11$

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



HQ/W-1,75/9, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 20.4.11 18:04

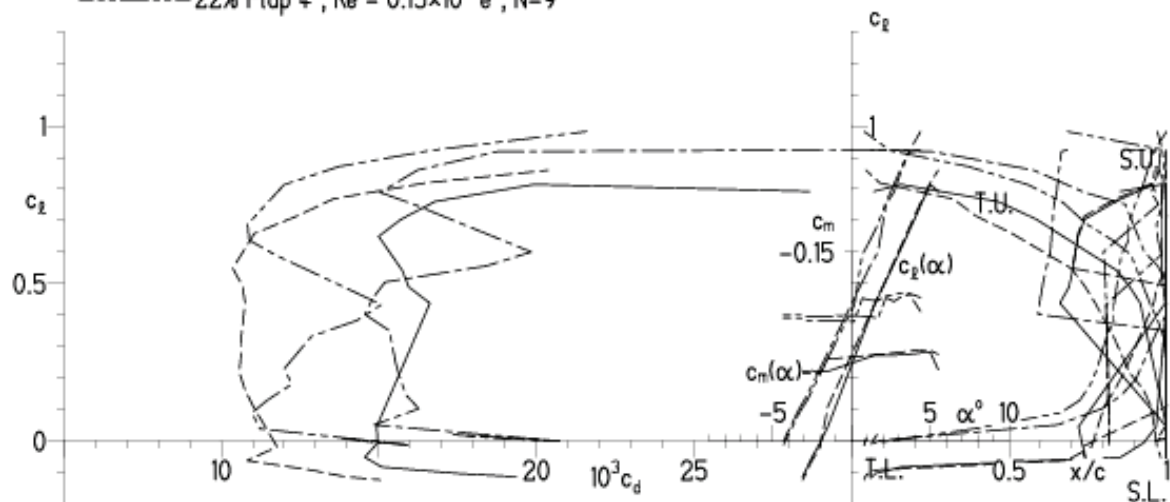


EPPLER 2005 V. 8.5.07 RUN 20.4.11 18:04

HQ/W-1,75/9 9%

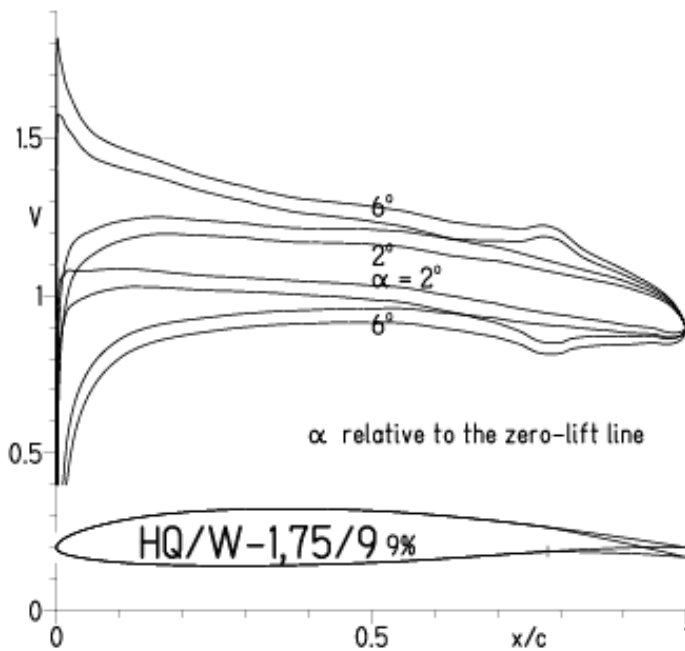
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · - 22% Flap 4°, $Re = 75\,000 e^N, N=9$
- · - · - 22% Flap 4°, $Re = 0.15 \times 10^6 e^N, N=9$

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



HQ/W-1,75/9, N=9, mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 20.4.11 18:08

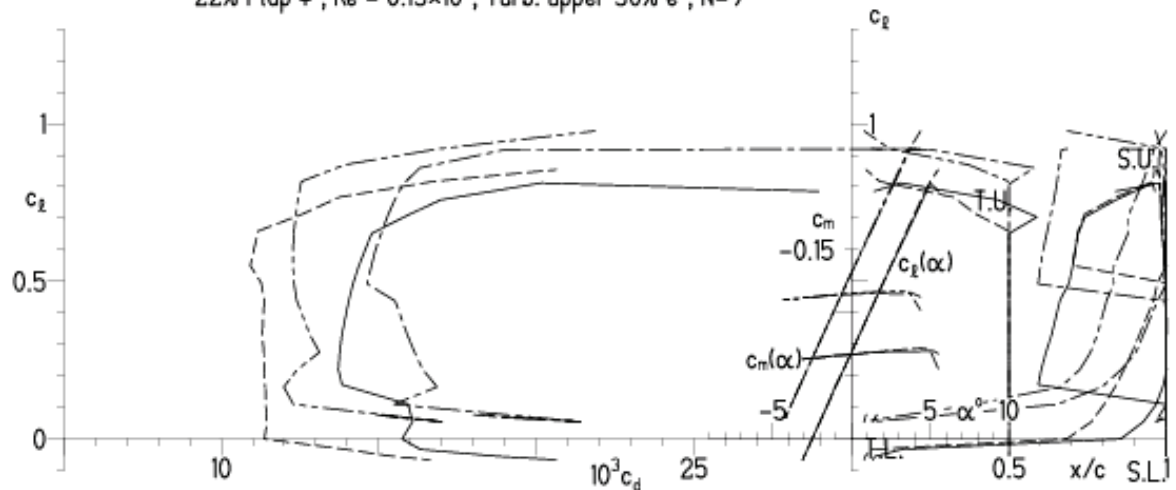


EPPLER 2005 V. 8.5.07 RUN 20.4.11 18:08

HQ/W-1,75/9 9%

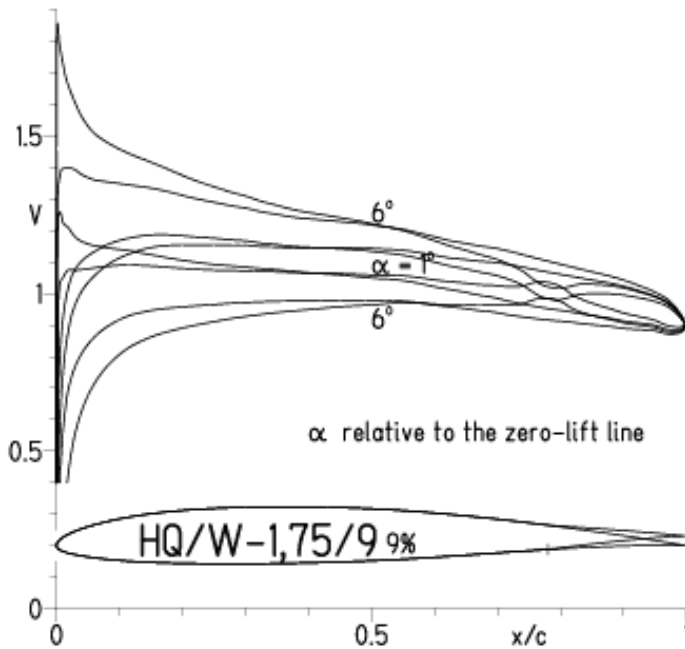
- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.15×10^6 , Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- · - 22% Flap 4° , $Re = 0.15 \times 10^6$, Turb. upper 50% e^N , $N=9$

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

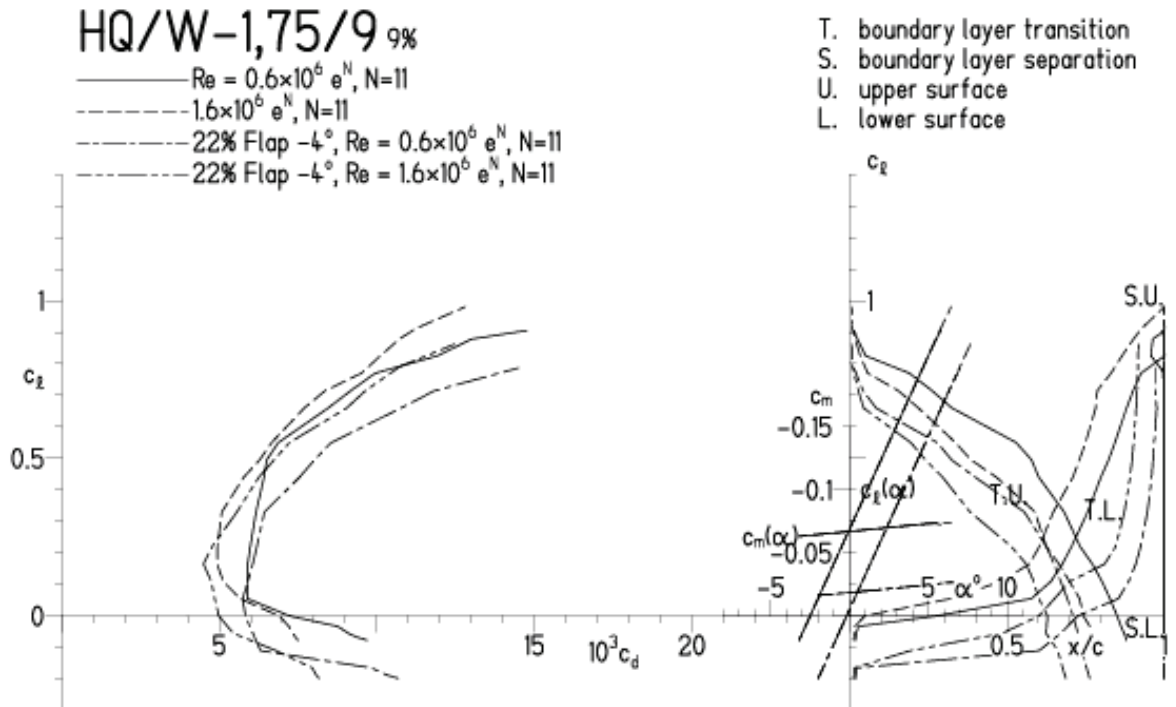


HQ/W-1,75/9, N=11, mit -4° Wölbklappenausschlag
 (F3B/F3F-ähnliche Modelle mit 50 g/dm^2 erreichen damit gut über 300 km/h)

EPPLER 2005 V. 8.5.07 RUN 20.4.11 18:32

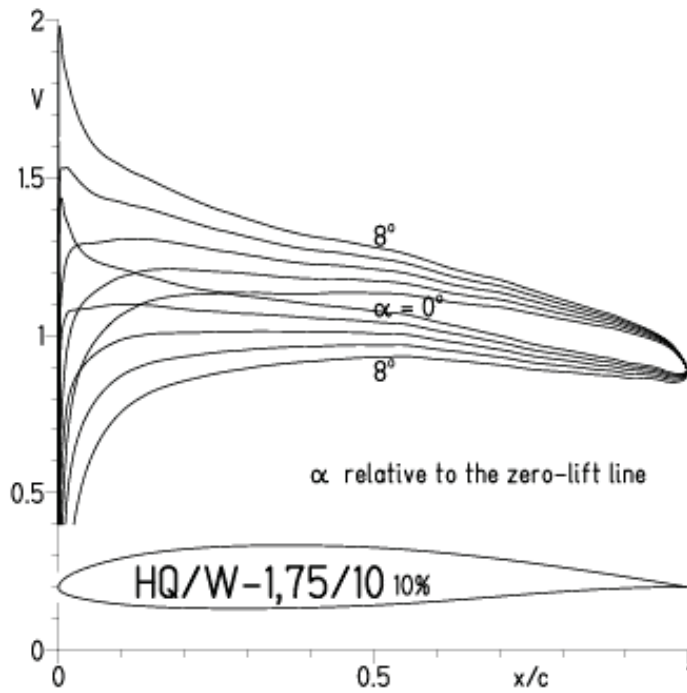


EPPLER 2005 V. 8.5.07 RUN 20.4.11 18:32



HQ/W-1,75/10, N=11

EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:16



EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:16

HQ/W-1,75/10 10%

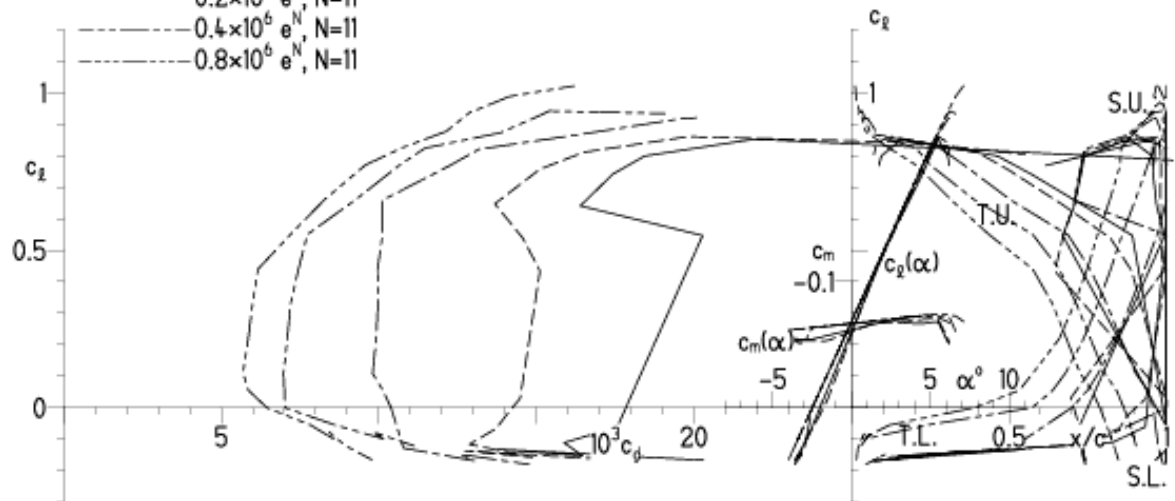
— $Re = 75\,000 e^N, N=11$

- - - $0.1 \times 10^6 e^N, N=11$

- - - $0.2 \times 10^6 e^N, N=11$

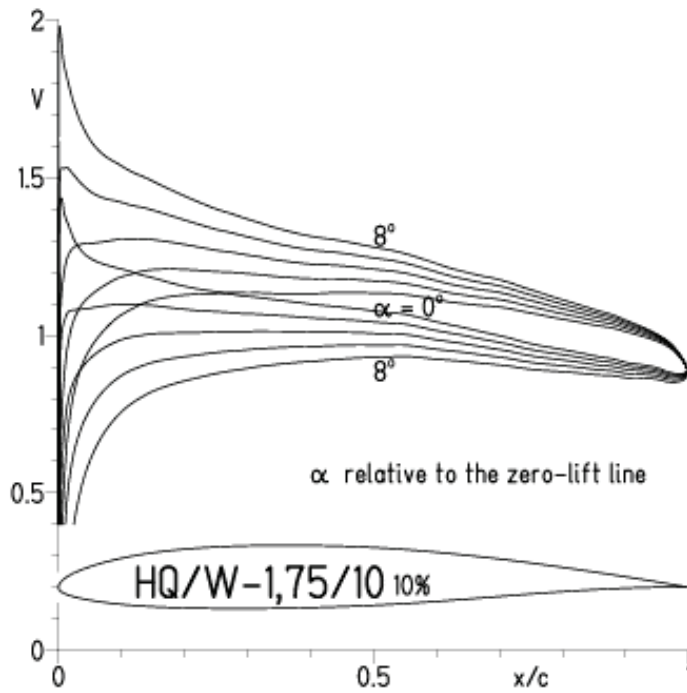
- - - $0.4 \times 10^6 e^N, N=11$

- - - $0.8 \times 10^6 e^N, N=11$



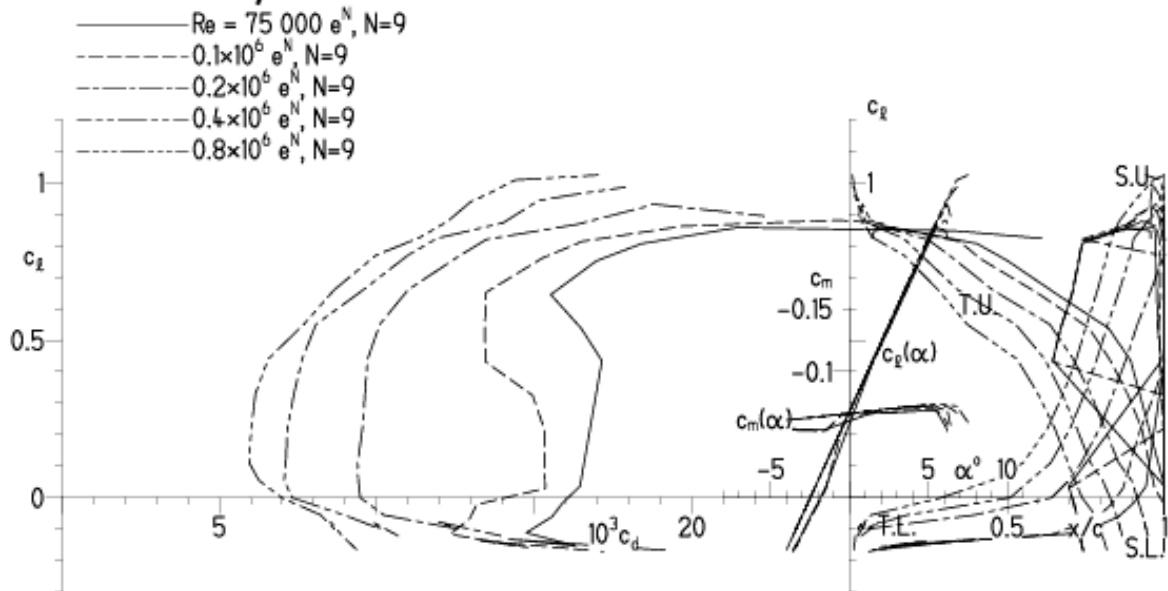
HQ/W-1,75/10, N=9

EPPLER 2005 V. 8.5.07 RUN 224.11 16:26



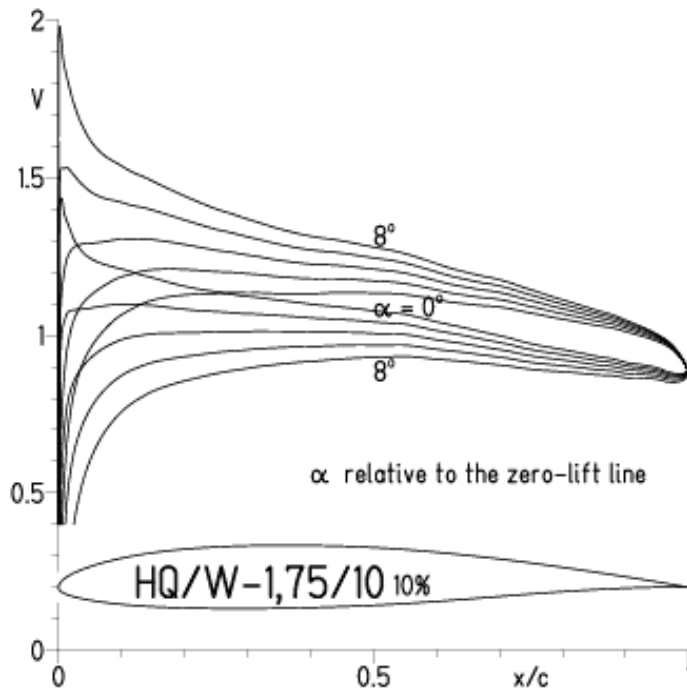
EPPLER 2005 V. 8.5.07 RUN 224.11 16:26

HQ/W-1,75/10 10%



HQ/W-1,75/10, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

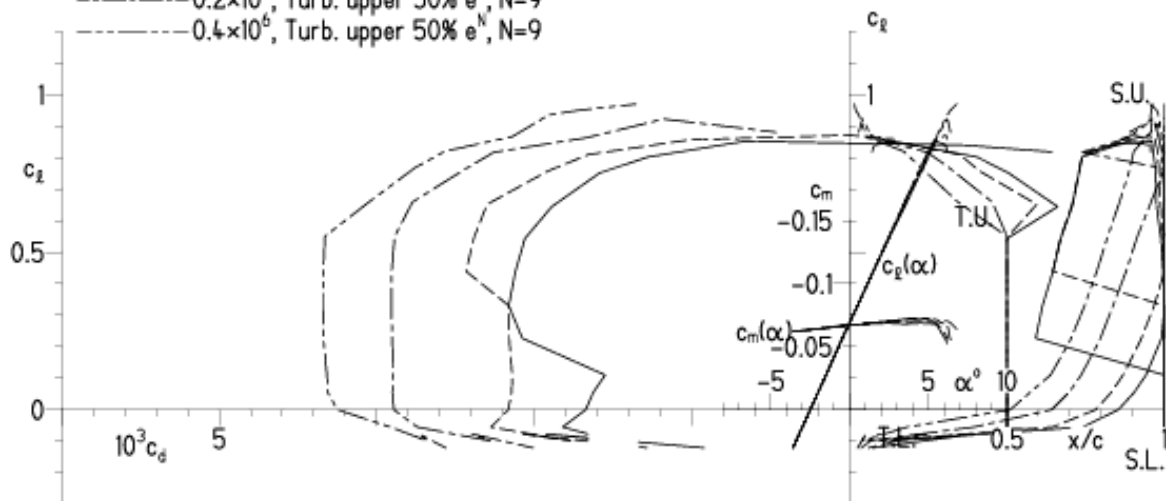
EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:31



EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:31

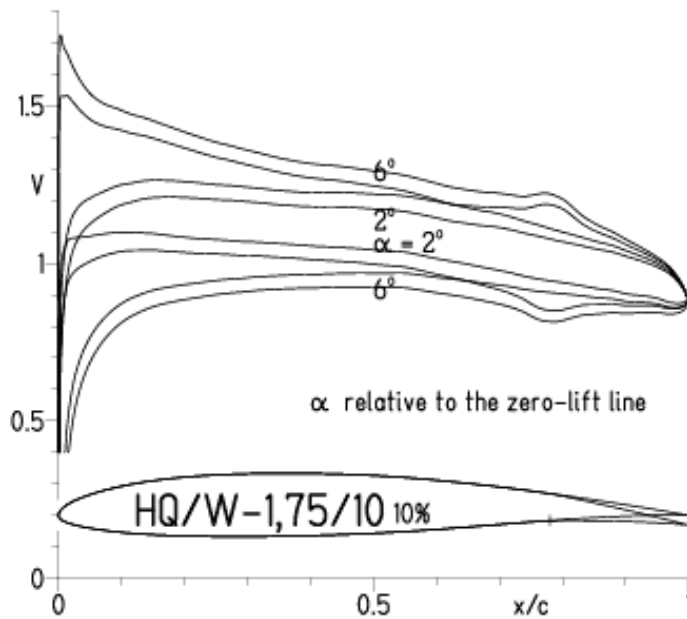
HQ/W-1,75/10 10%

- $Re = 75\,000$, Turb. upper 50% e^N , N=9
- - - 0.1×10^6 , Turb. upper 50% e^N , N=9
- · - 0.2×10^6 , Turb. upper 50% e^N , N=9
- - - 0.4×10^6 , Turb. upper 50% e^N , N=9

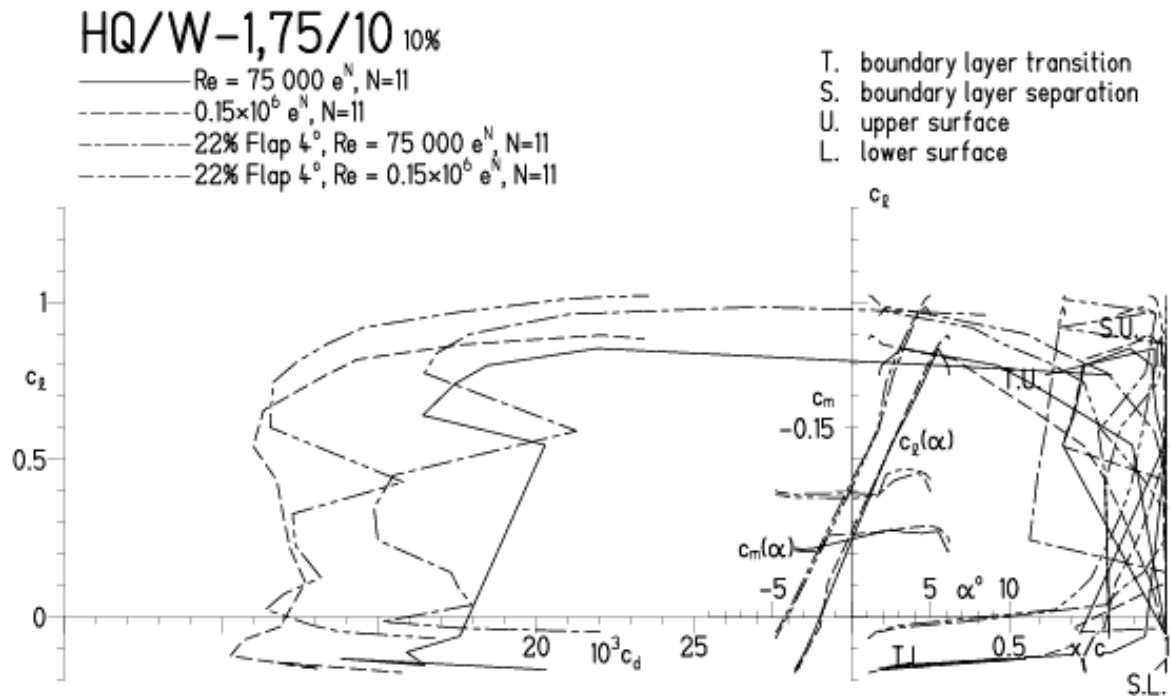


HQ/W-1,75/10, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:47

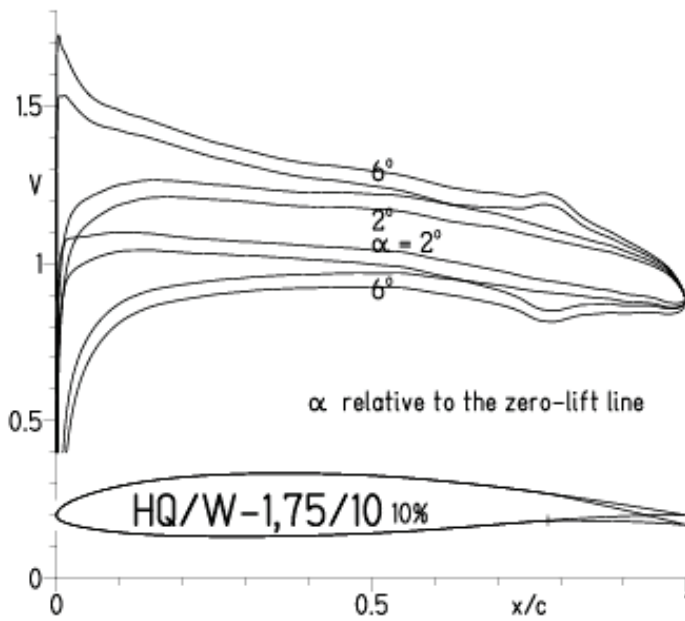


EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:47



HQ/W-1,75/10, N=9, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:56

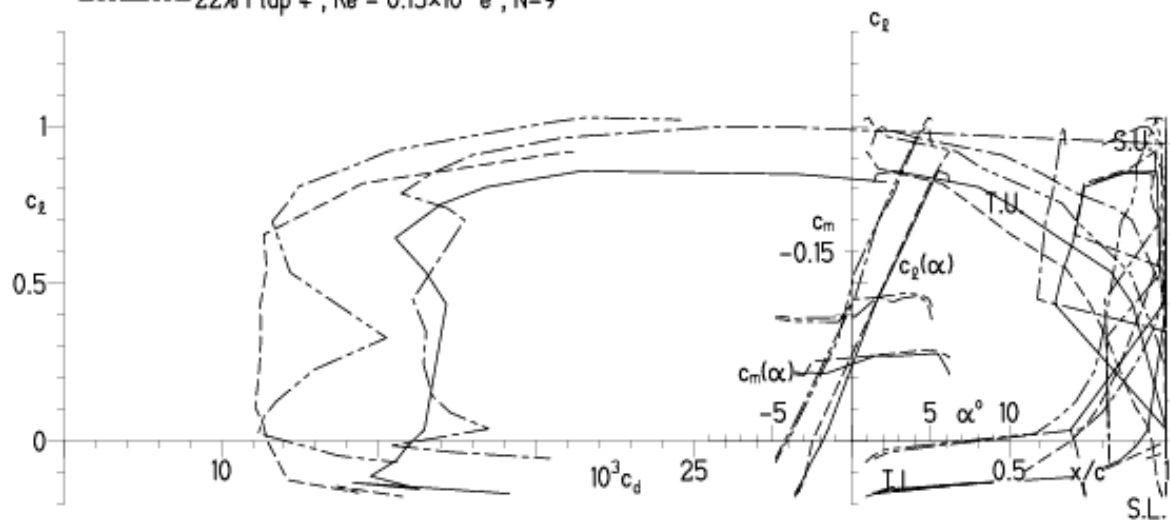


EPPLER 2005 V. 8.5.07 RUN 22.4.11 16:56

HQ/W-1,75/10 10%

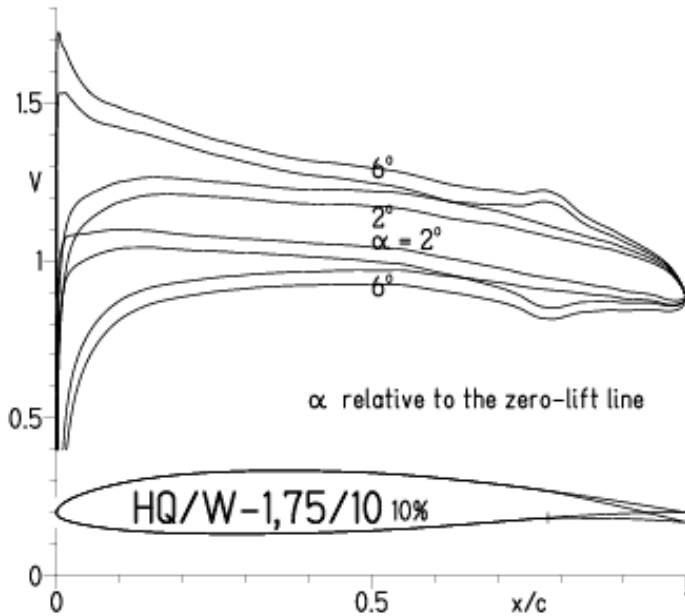
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 75\,000 e^N, N=9$
- · - · 22% Flap $4^\circ, Re = 0.15 \times 10^6 e^N, N=9$

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



HQ/W-1,75/10, N=9, mit +4° Wölbklappenausschlag, Turbulatoreffekt
(Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 22.4.11 17:00

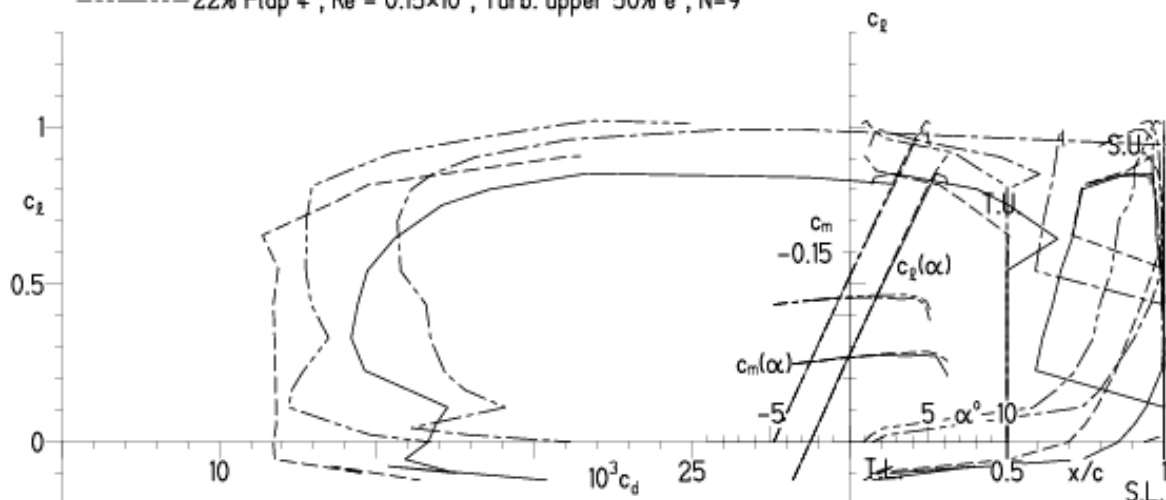


EPPLER 2005 V. 8.5.07 RUN 22.4.11 17:00

HQ/W-1,75/10 10%

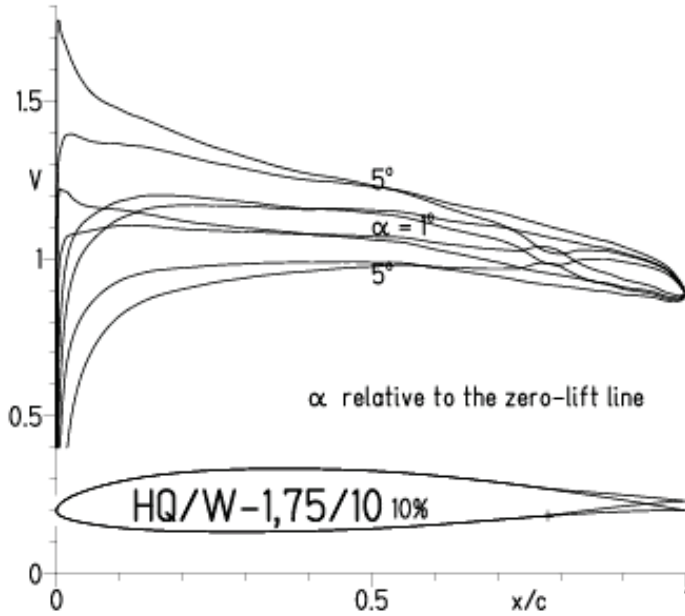
- $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- - - 0.15×10^6 , Turb. upper 50% e^N , $N=9$
- · - · 22% Flap 4° , $Re = 75\,000$, Turb. upper 50% e^N , $N=9$
- · - · 22% Flap 4° , $Re = 0.15 \times 10^6$, Turb. upper 50% e^N , $N=9$

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

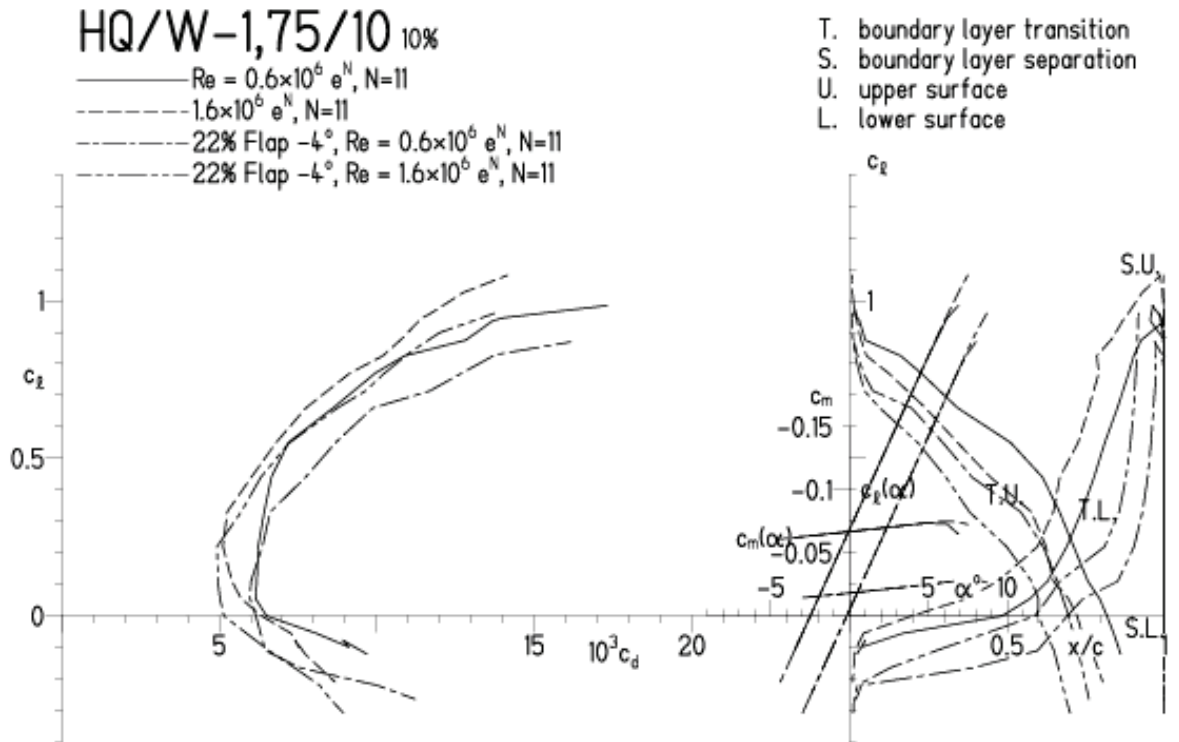


HQ/W-1,75/10, N=11, mit -4° Wölbklappenausschlag
 (Segelmodelle mit > 50 g/dm² erreichen damit gut über 300 km/h Höchstgeschwindigkeit)

EPPLER 2005 V. 8.5.07 RUN 22.4.11 17:29

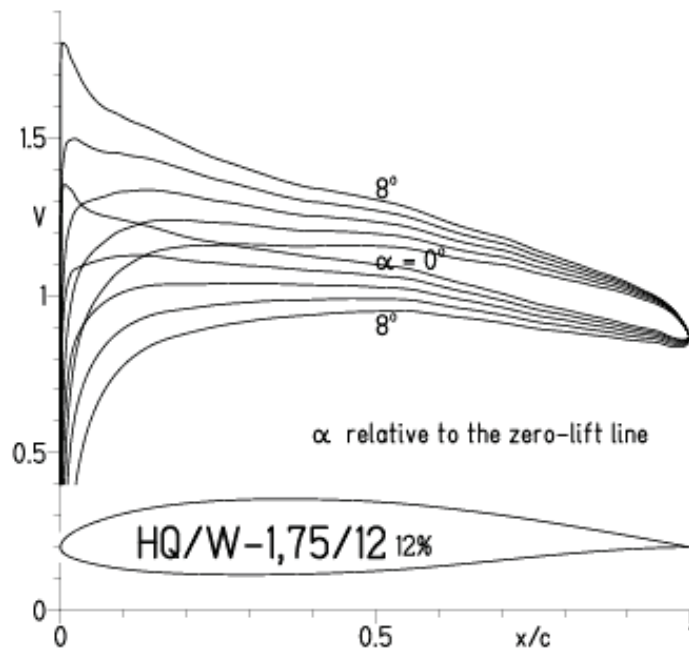


EPPLER 2005 V. 8.5.07 RUN 22.4.11 17:29

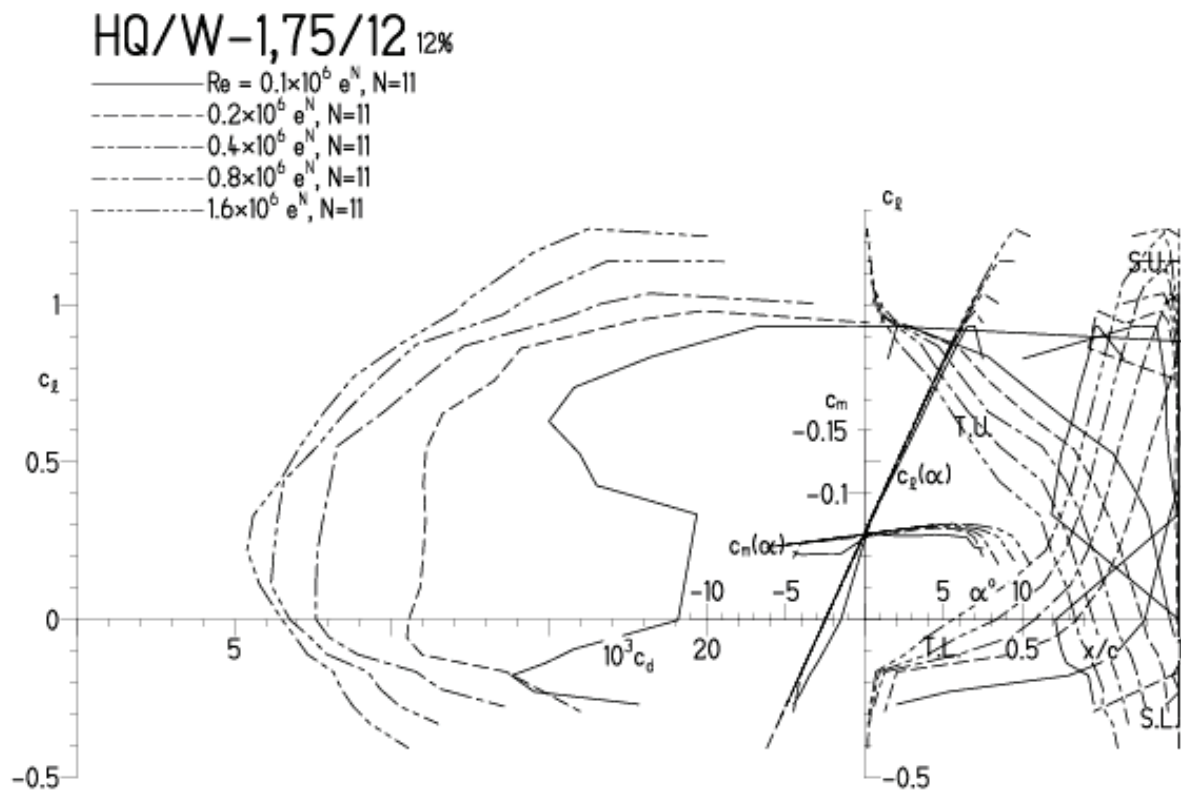


HQ/W-1,75/12, N=11

EPPLER 2005 V. 8.5.07 RUN 24.4.11 10:47

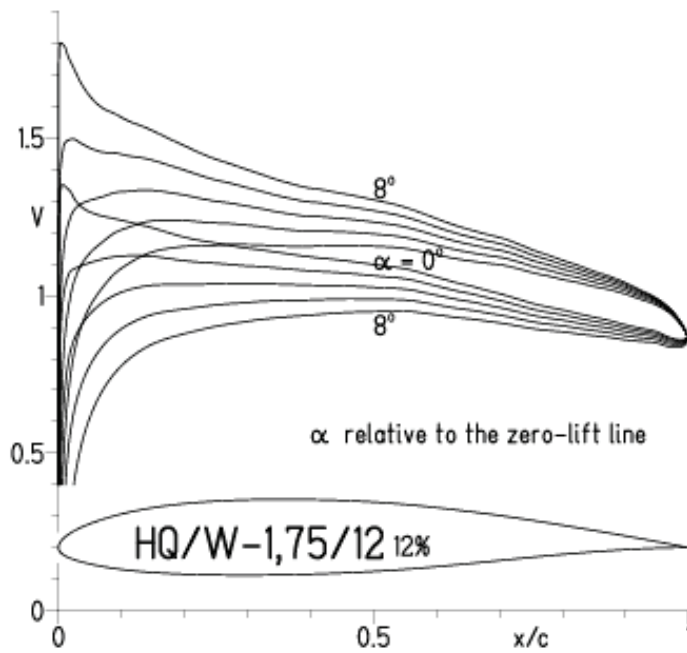


EPPLER 2005 V. 8.5.07 RUN 24.4.11 10:47

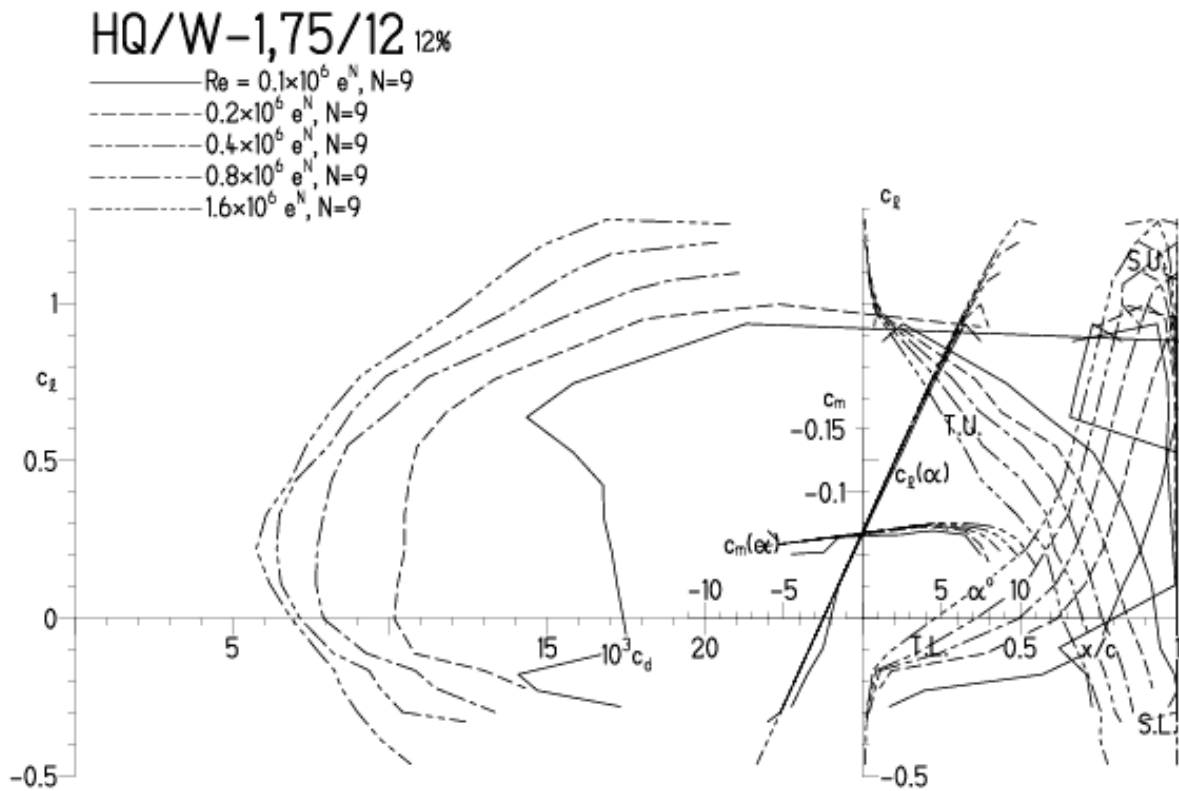


HQ/W-1,75/12, N=9

EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:06

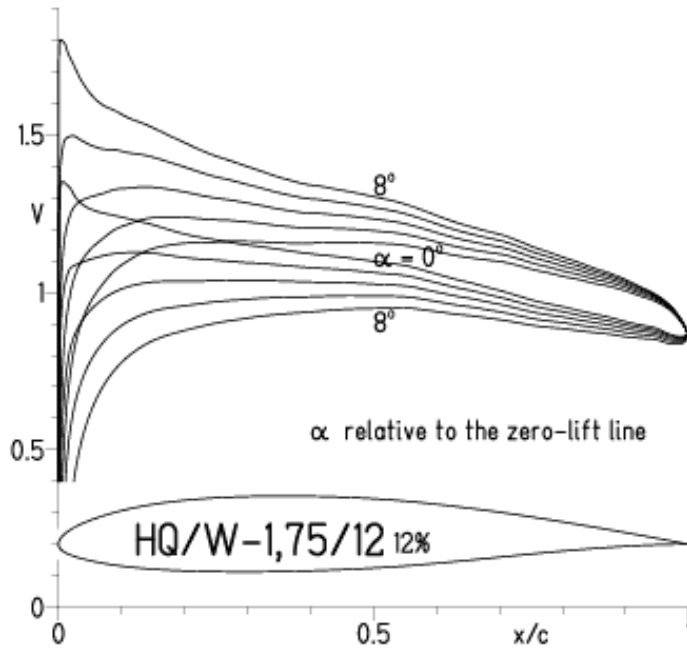


EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:06



HQ/W-1,75/12, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

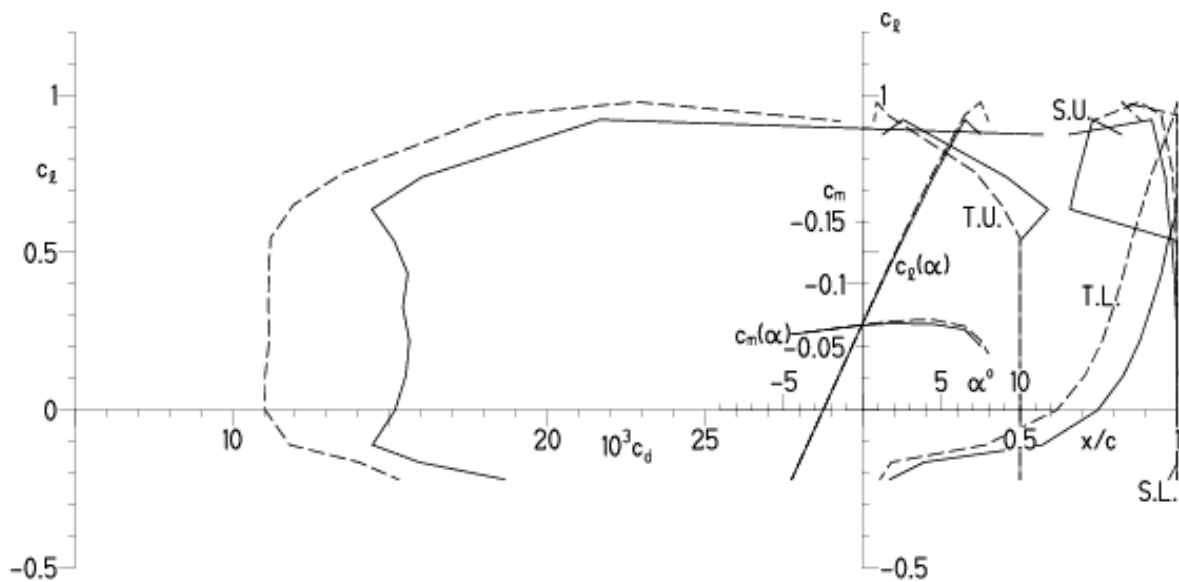
EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:13



EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:13

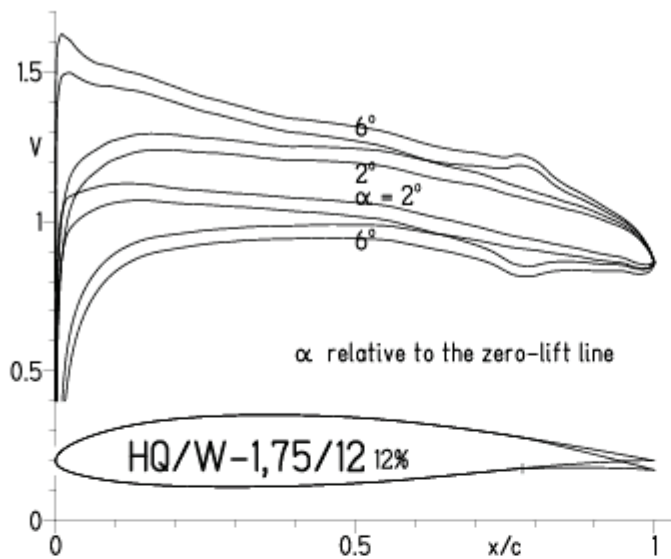
HQ/W-1,75/12 12%

— $Re = 0.1 \times 10^6$, Turb. upper 50% e^N , N=9
 - - - 0.2×10^6 , Turb. upper 50% e^N , N=9



HQ/W-1,75/12, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 27.4.11 12:59

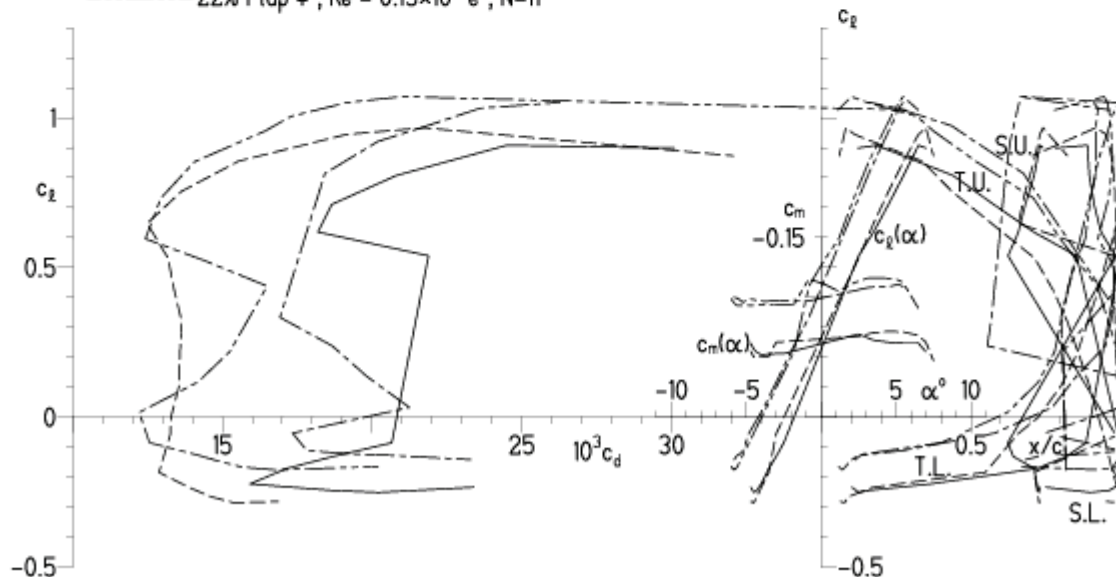


EPPLER 2005 V. 8.5.07 RUN 27.4.11 12:59

HQ/W-1,75/12 12%

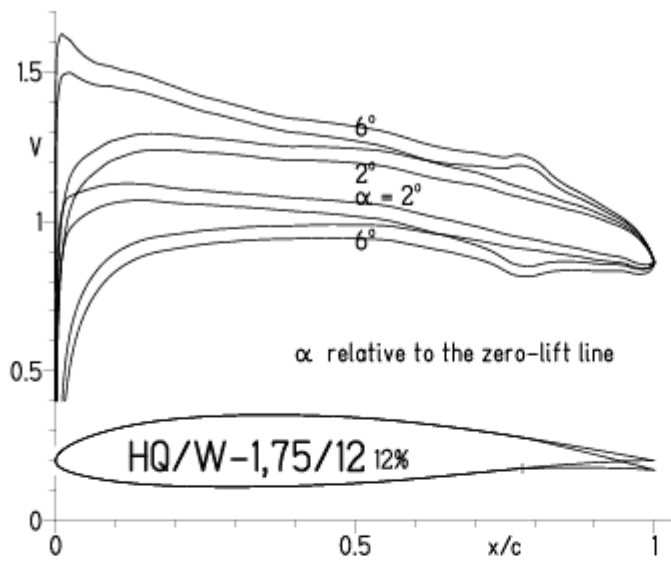
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - 22% Flap 4°, $Re = 75\,000 e^N, N=11$
- · - 22% Flap 4°, $Re = 0.15 \times 10^6 e^N, N=11$

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



HQ/W-1,75/12, N=9, mit +4° Wöbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 27.4.11 13:02

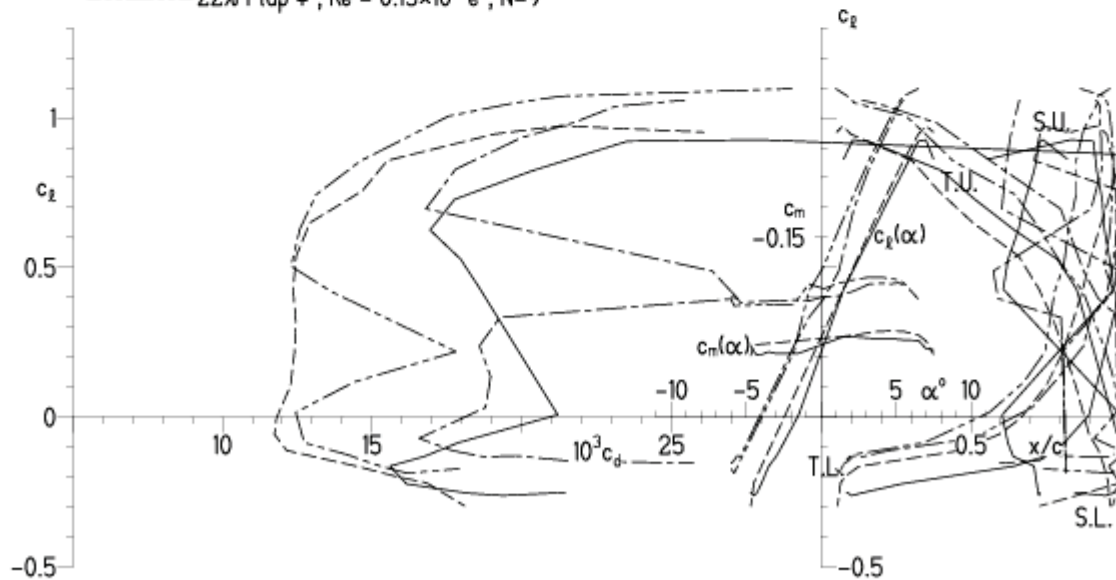


EPPLER 2005 V. 8.5.07 RUN 27.4.11 13:02

HQ/W-1,75/12 12%

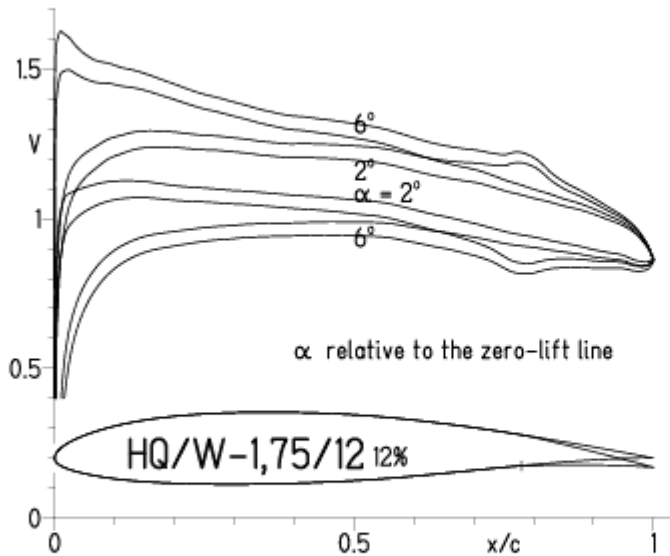
- $Re = 75\,000 e^N, N=9$
- - - $0.15 \times 10^6 e^N, N=9$
- · - · 22% Flap 4°, $Re = 75\,000 e^N, N=9$
- · - · 22% Flap 4°, $Re = 0.15 \times 10^6 e^N, N=9$

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



HQ/W-1,75/12, N=9, mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 27.4.11 13:05

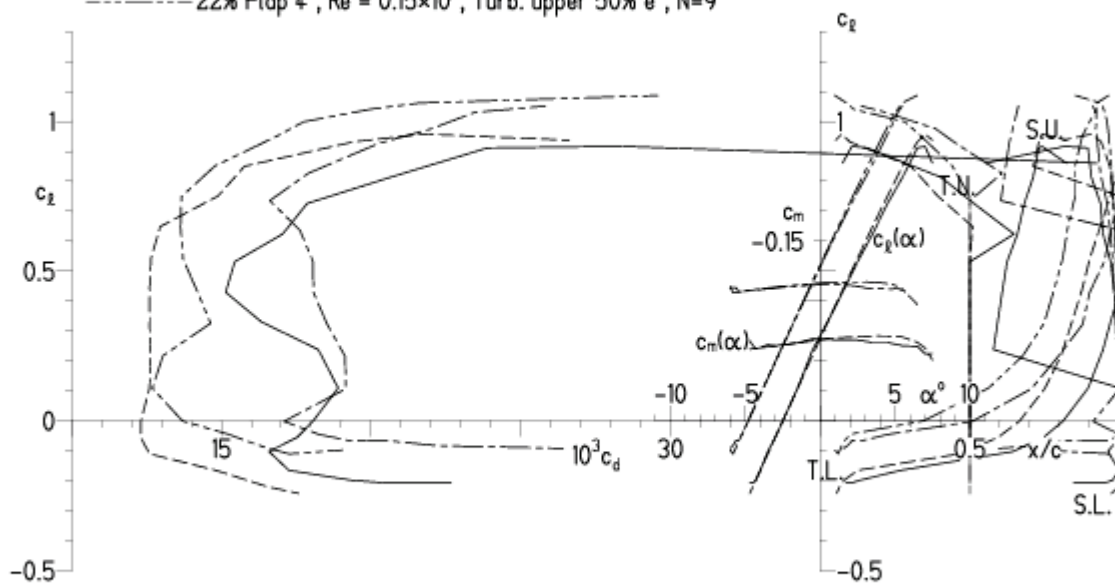


EPPLER 2005 V. 8.5.07 RUN 27.4.11 13:05

HQ/W-1,75/12 12%

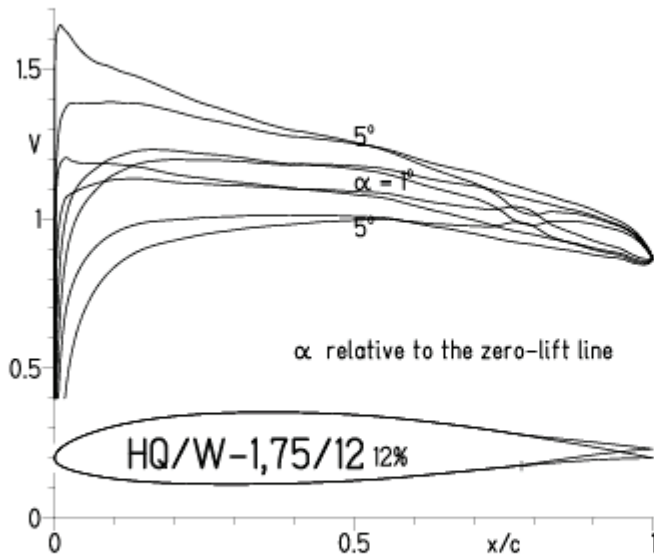
- Re = 75 000, Turb. upper 50% e^N, N=9
- - - 0.15x10⁶, Turb. upper 50% e^N, N=9
- 22% Flap 4°, Re = 75 000, Turb. upper 50% e^N, N=9
- - - 22% Flap 4°, Re = 0.15x10⁶, Turb. upper 50% e^N, N=9

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

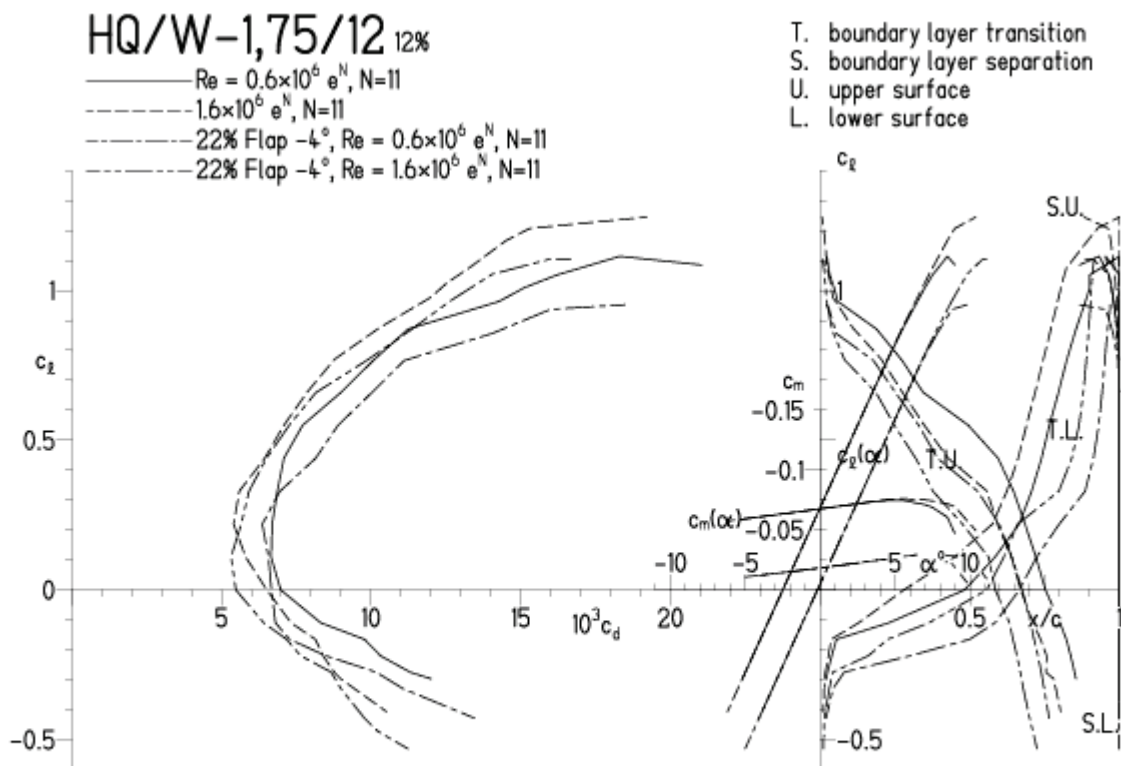


HQ/W-1,75/14, N=11, mit -4° Wölbklappenausschlag
(Segelmodelle erreichen damit hohe Endgeschwindigkeiten)

EPPLER 2005 V. 8.5.07 RUN 27.4.11 12:33

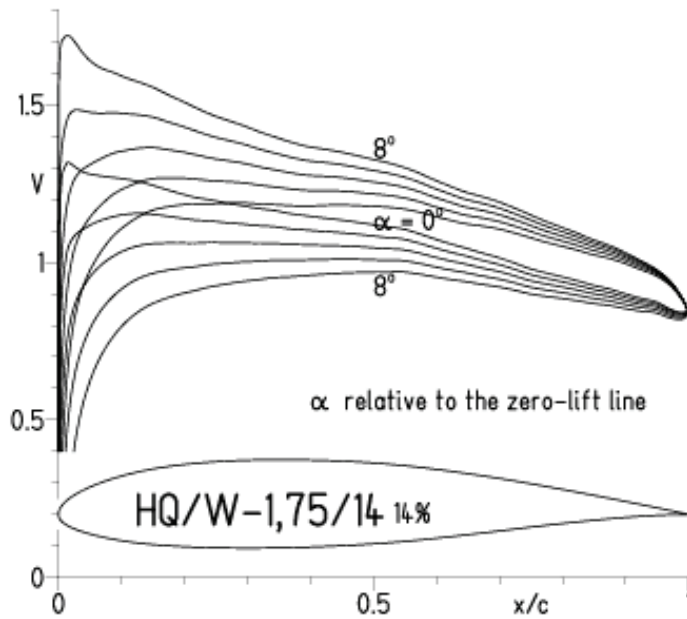


EPPLER 2005 V. 8.5.07 RUN 27.4.11 12:33



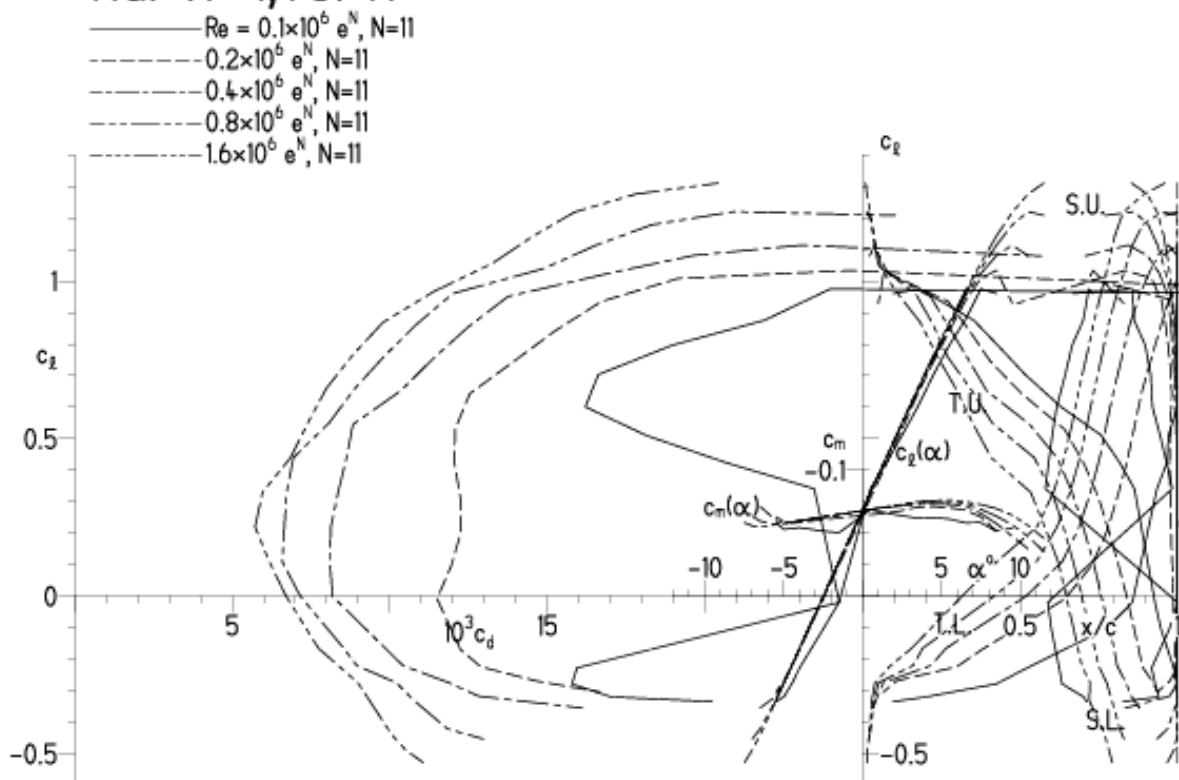
HQ/W-1,75/14, N=11

EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:30



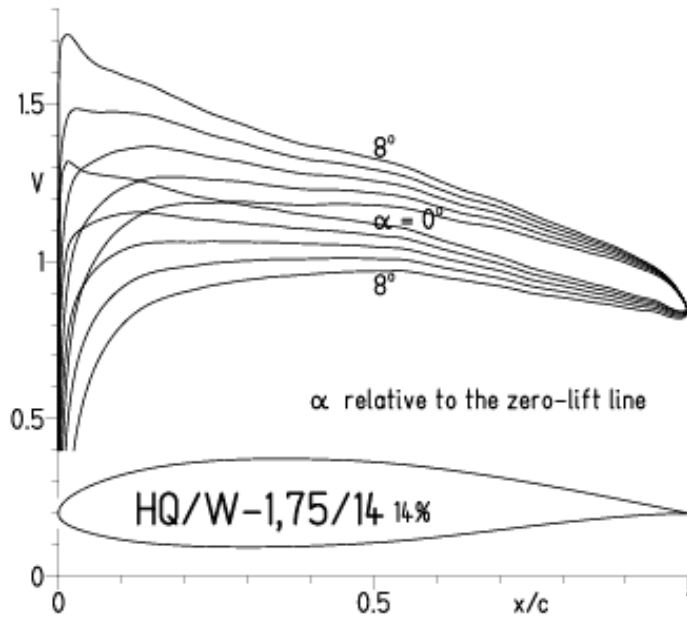
EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:30

HQ/W-1,75/14 14%



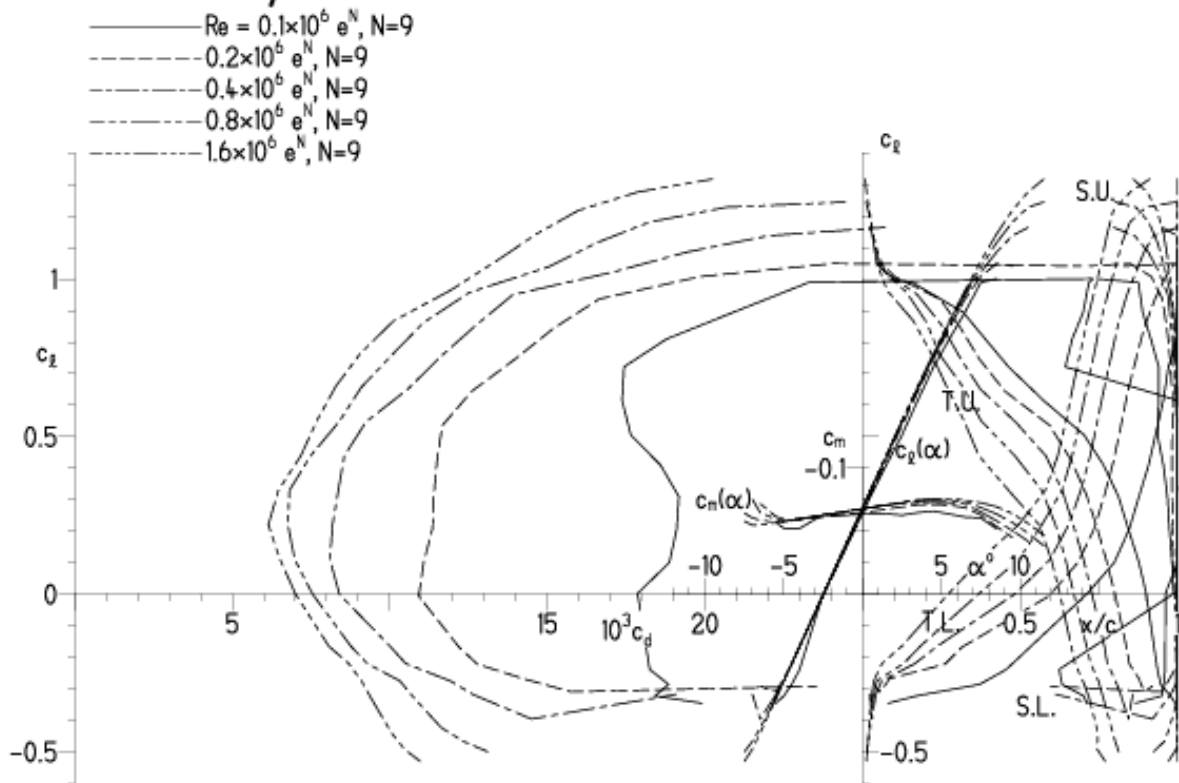
HQ/W-1,75/14, N=9

EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:35



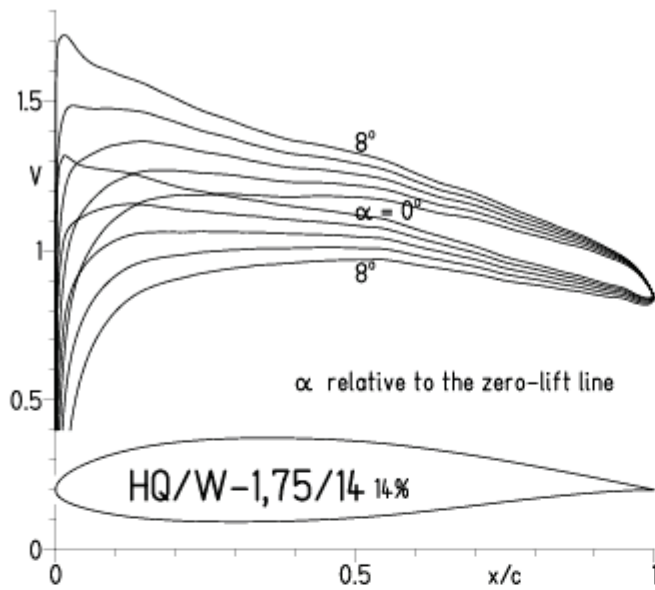
EPPLER 2005 V. 8.5.07 RUN 24.4.11 11:35

HQ/W-1,75/14 14%



HQ/W-1,75/14, N=9, Turbulatoreffekt (optimal beim Maximum der Wölbung)

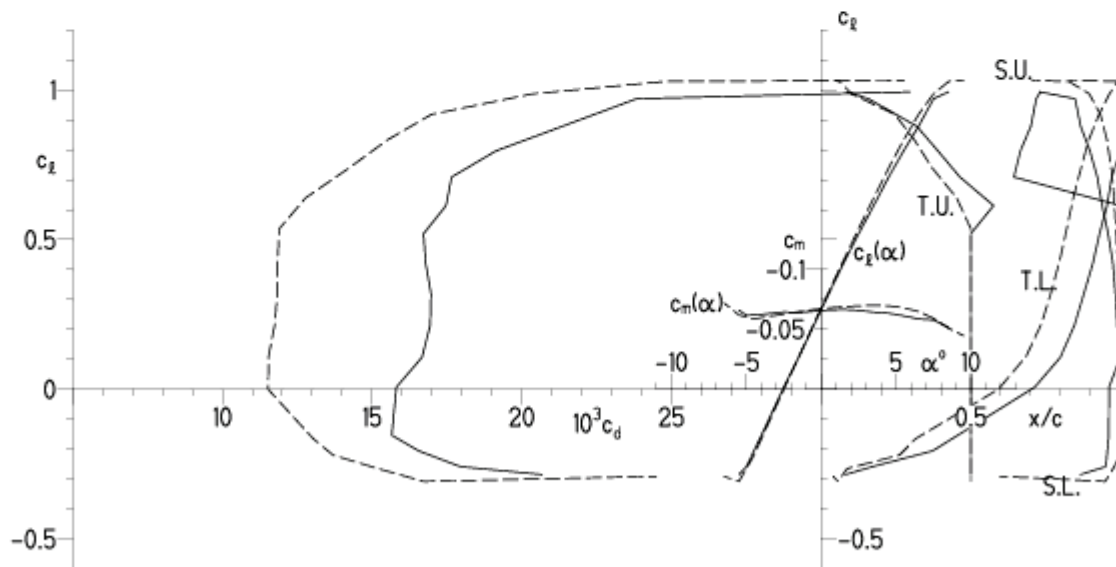
EPPLER 2005 V. 8.5.07 RUN 24.4.11 1040



EPPLER 2005 V. 8.5.07 RUN 24.4.11 1040

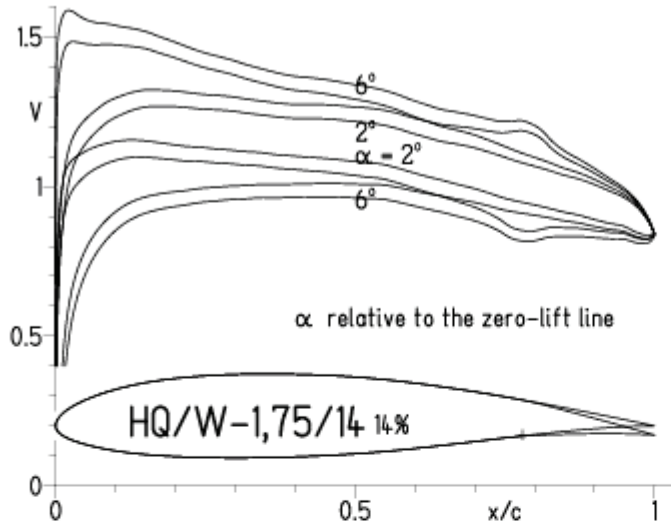
HQ/W-1,75/14 14%

- $Re = 0.1 \times 10^6$, Turb. upper 50% e^N , N=9
- - - 0.2×10^6 , Turb. upper 50% e^N , N=9



HQ/W-1,75/14, N=11, mit +4° Wölbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 27.4.11 11:10

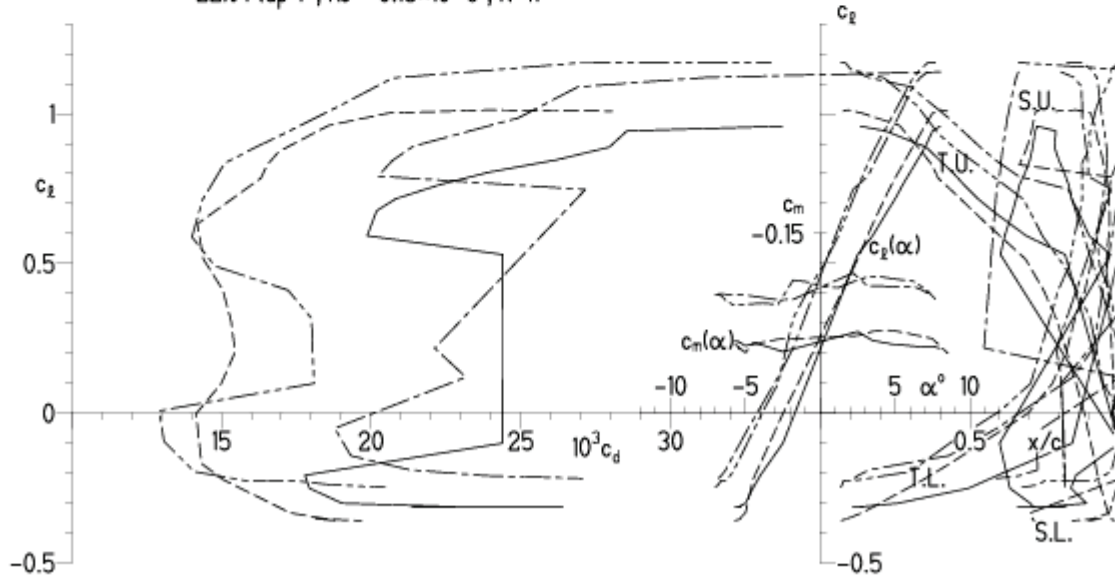


EPPLER 2005 V. 8.5.07 RUN 27.4.11 11:10

HQ/W-1,75/14 14%

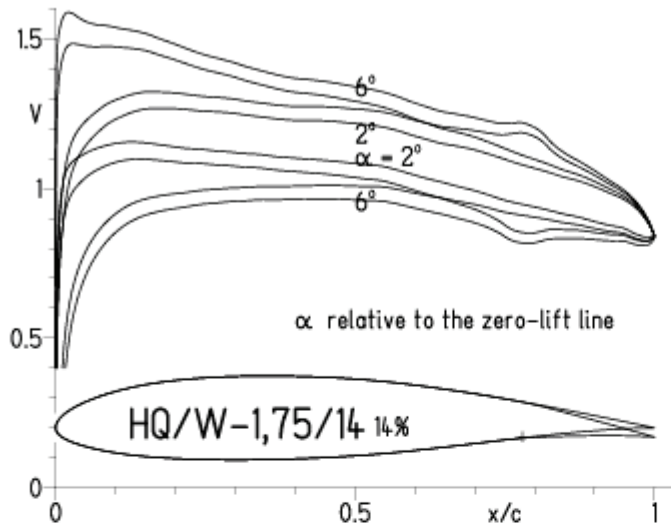
- $Re = 75\,000 e^N, N=11$
- - - $0.15 \times 10^6 e^N, N=11$
- · - · 22% Flap 4°, $Re = 75\,000 e^N, N=11$
- · - · 22% Flap 4°, $Re = 0.15 \times 10^6 e^N, N=11$

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

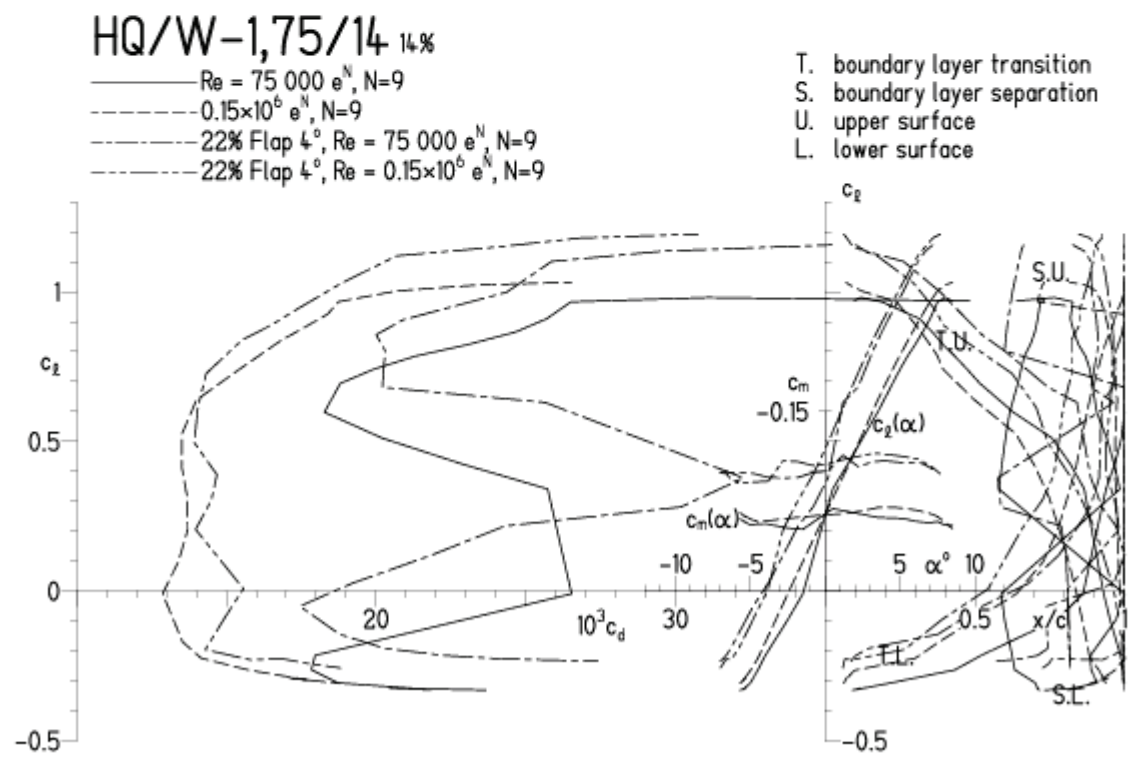


HQ/W-1,75/14, N=9, mit +4° Wöbklappenausschlag

EPPLER 2005 V. 8.5.07 RUN 274.0 11:15

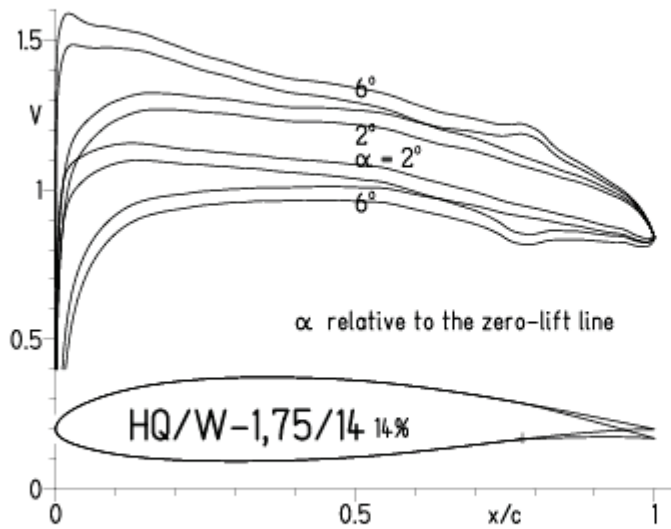


EPPLER 2005 V. 8.5.07 RUN 274.0 11:15

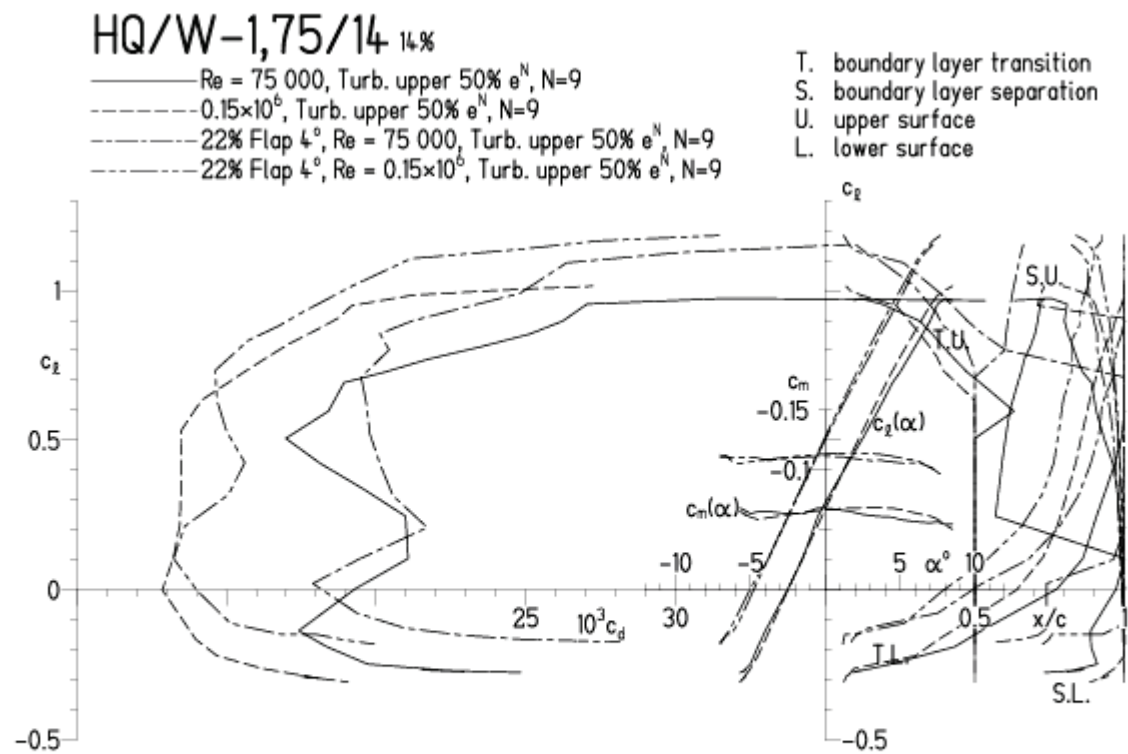


HQ/W-1,75/14, N=9, mit +4° Wölbklappenausschlag, Turbulatoreffekt
 (Verbesserungen für niedrige Geschwindigkeiten und Profiltiefen an Flügelenden)

EPPLER 2005 V. 8.5.07 RUN 27.4.11 11:19

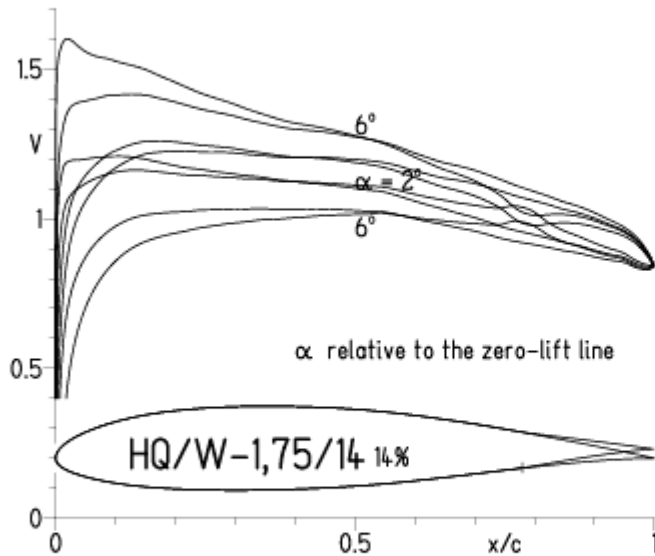


EPPLER 2005 V. 8.5.07 RUN 27.4.11 11:19



HQ/W-1,75/14, N=11, mit -4° Wölbklappenausschlag
(Segelmodelle erreichen damit hohe Endgeschwindigkeiten)

EPPLER 2005 V. 8.5.07 RUN 27.4.11 11:51



EPPLER 2005 V. 8.5.07 RUN 27.4.11 11:51

