Ergonomics Requirement Specification for External Machine Manufacturers

Our Requirements to New Machines

Neutral Joint Positions – Head and Neck

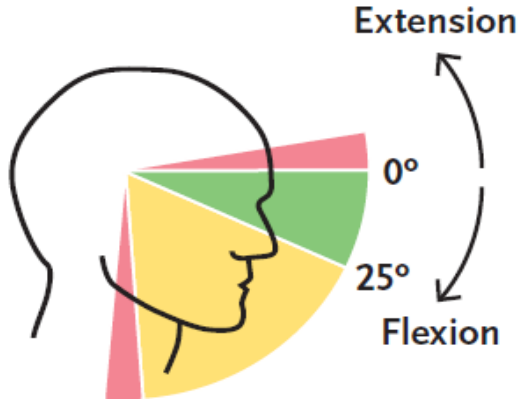
Evaluation of Head and Neck Positions

Ergonomics Requirement Specification for External Machine Manufacturers - Continental AG

Public

Bending of the head: Flexion (forwards) / Extension (backwards)

Head and Neck Bending of the head		Neutral (natural) Body Posture	Awkward Body Posture	
Source: German BGIA-Report 2/2007 Acc. to ISO 11226(2)		Optimal	Still acceptable posture	Extremely awkward posture
Bending of the head backwards (Extension)	-	0°		< 0°
Bending of the head forwards (Flexion)	+	0° to 25°	25° to 85°	> 85°



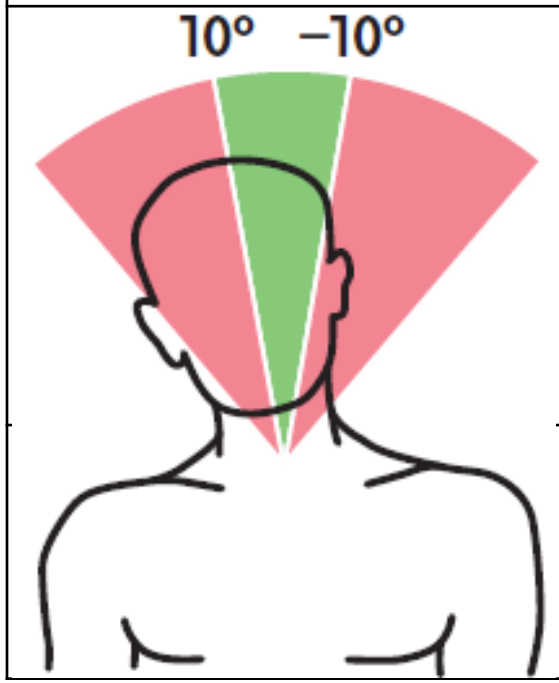
Definition of colors

Green: Optimal. This posture is allowed to be adopted **for a long time**.

Yellow: Still acceptable body posture. This posture is only allowed to be adopted for a **short period of time** or to perform work-tasks with **low frequencies**.

Red: Extremely awkward Body Posture. **Has to be avoided!**

Bending of the head to a side

Head and Neck Bending of the head to a side			Neutral (natural) Body Posture	Awkward Body Posture	
Source: German BGIA-Report 2/2007 Acc. To DIN EN 1005-4 (3)			Optimal	Still acceptable posture	Extremely awkward posture
	To the right	+	0° to 10°		> 10°
	To the left	-	0° to -10°		< -10°

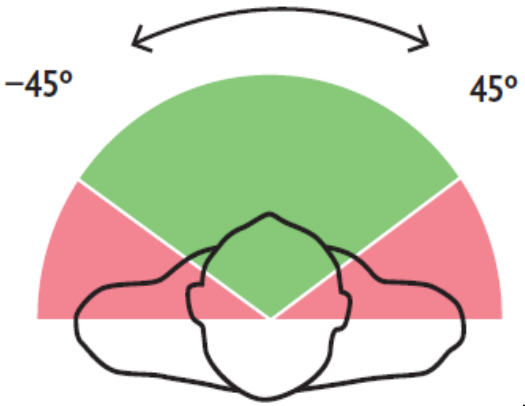
Definition of colors

Green: Optimal. This posture is allowed to be adopted **for a long time**.

Yellow: Still acceptable body posture. This posture is only allowed to be adopted for a **short period of time** or to perform work-tasks with **low frequencies**.

Red: Extremely awkward Body Posture. **Has to be avoided!**

Torsion of the head

Head and Neck Torsion of the head			Neutral (natural) Body Posture	Awkward Body Posture	
Source: German BGIA-Report 2/2007 Acc. To DIN EN 1005-4 (3)			Optimal	Still acceptable posture	Extremely awkward posture
	To the right	+	0°to 45°		> 45°
	To the left	-	0° to -45°		< -45°

Definition of colors

Green: Optimal. This posture is allowed to be adopted **for a long time**.

Yellow: Still acceptable body posture. This posture is only allowed to be adopted for a **short period of time** or to perform work-tasks with **low frequencies**.

Red: Extremely awkward Body Posture. **Has to be avoided!**