


CONTENT



- Structure of SC15 Committee
- First Documents out for voting
- Human Factors – Metabolic Rates - Anthropometrics
- Classification Scheme
- Program Plan
- Vision

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ISO-SC 15 STRUCTURE

ISO/TC94/SC15
Respiratory Protective Devices
DIN W. Drews

WG 1: General
BSI D. Harris

WG 2: Filtering Devices
DIN T. Krügerke

WG 3: Supplied Breathable Gas Devices
DIN W. Drews

PG 1: Terms & Definitions
C. Colton (USA)

PG 2: Selection, Use & Maintenance
C. Tracey (GB)

PG 3: Marking and Information
R. Weber (USA)

PG 4: Test methods
P. Clarke (GB)

PG 5: Human Factors
M. Thomas (GB)

PG 6: Classification
L. Board (USA)

PG 1: Terms, definition
16972-Terms, definition
Y. Masuda (JPN)

PG 2: 16975 Guideline, use, care
And maintenance
T. Krügerke (GER)

PG 3: System
R. Metzler (USA)

16976-1-Metabolic rate
16976-2-Anthropometrics

PG 1: Breathing Gas Supply Management
W. Drews (Ger)

PG 2: Human Interface
T. Krügerke (Ger)

PG 3: System
R. Metzler (USA)

16900-1.2-Inward Leakage
16900-2.2-Filter Penetration
16900-3.2-Gas Filter Capacity
16900-4.2-Breathing Resistance

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METABOLIC RATES (MR) VS BODY SURFACE

Class	body surface 1,6 m²					Peak flow rates l/min	Peak flow rates l/min
	Metabolic rate W/m²	Oxygen uptake l/min STPD	Minute volume l/min BTPS	Minute volume l/min BTPS	Peak flow rates l/min		
1	65	0.298	9	12	0.76	1.84	
2	100	0.459	15	19	1.09	2.30	
3	165	0.757	24	31	1.65	3.00	
4	230	1.055	34	44	2.17	3.57	
5	290	1.330	42	55	2.63	4.03	
6	400	1.835	58	76	3.44	4.77	
7	475	2.179	69	90	3.97	5.22	
8	600	2.752	88	114	4.82	5.91	

ISO standard woman (ISO 8996)

Class	large man (acc. to ISO 8996) body surface 2.1 m²					Peak flow rates l/min	Peak flow rates l/min
	Metabolic rate W/m²	Oxygen uptake l/min STPD	Minute volume l/min BTPS	Minute volume l/min BTPS	Peak flow rates l/min		
1	65	0.391	12	16	0.95	2.12	
2	100	0.602	19	25	1.36	2.66	
3	165	0.993	32	41	2.06	3.46	
4	230	1.384	44	57	2.72	4.12	
5	290	1.745	56	72	3.30	4.66	
6	400	2.407	77	100	4.31	5.50	
7	475	2.858	91	119	4.98	6.02	
8	600	3.610	115	150	6.05	6.81	

ISO standard man (ISO 8996)
body surface 1,8 m²

Class 1 = (resting) Class 5 = very high

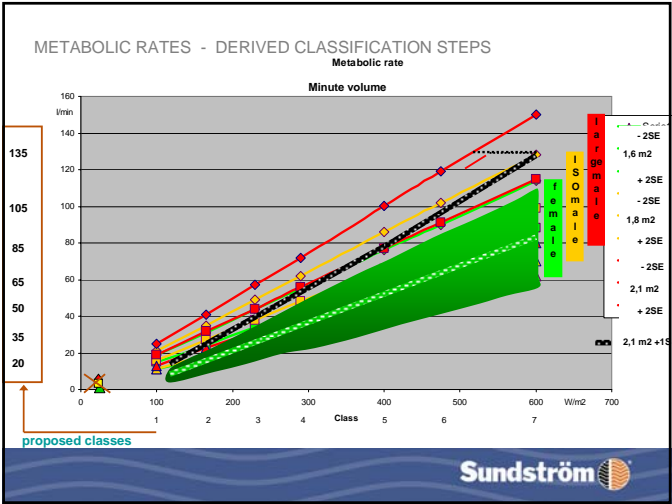
Class 2 = low MR Class 6 = very very high

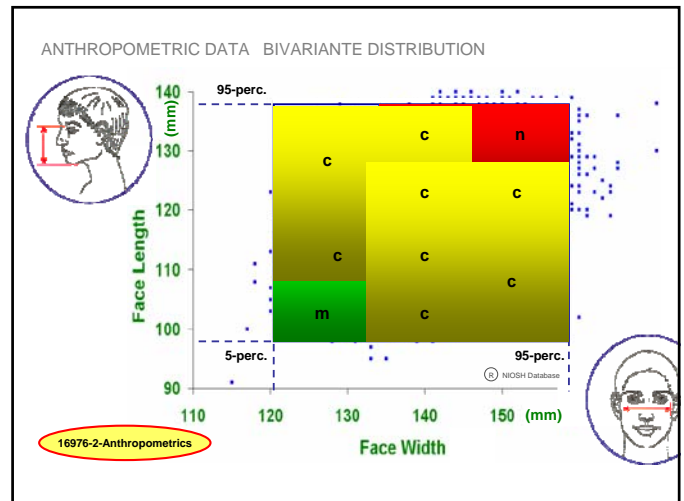
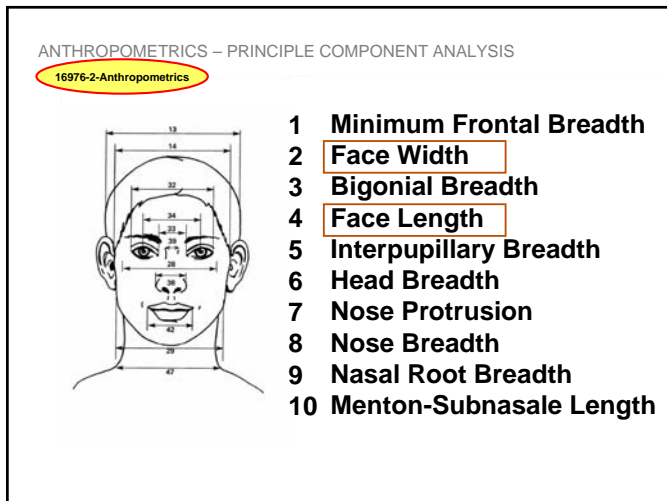
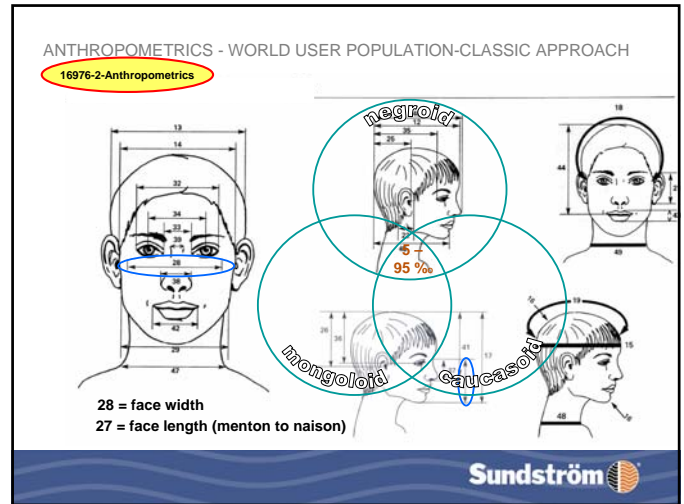
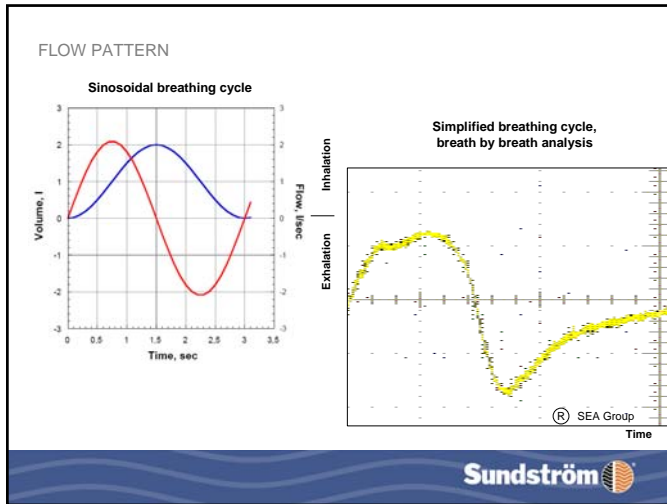
Class 3 = moderate Class 7 = intensive work

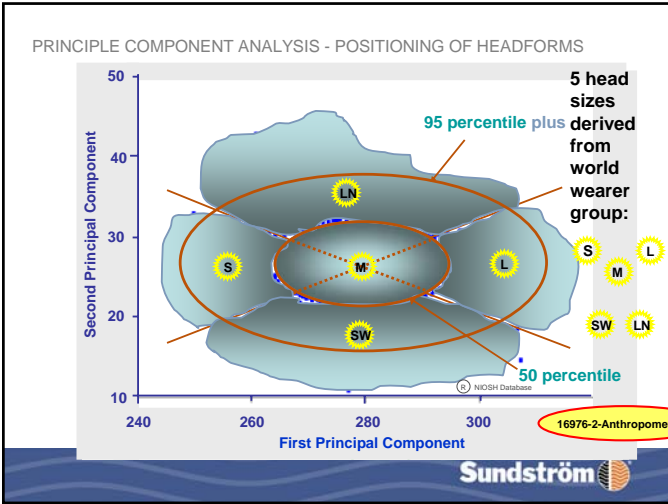
Class 4 = high Class 8 = exhaustive

16976-1-Metabolic rate

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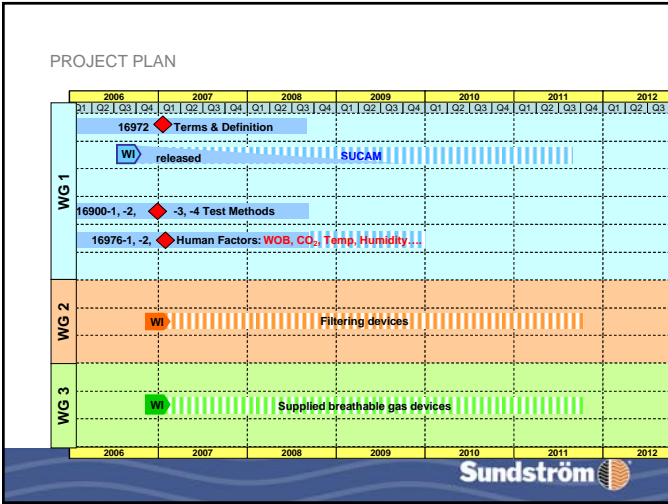
WG1/PG6 N006

Respirator Classification Scheme Updated Tokyo 2007

Mode of Operation	Performance Characteristics			
	Maximum TIL of Complete Device (%) (lab test)	Work Rate* (L/min)	Gas/Vapour Filter Capacity (OV Test conc.) (ppm)	Minimum Particle Filter Efficiency (%)
Breathable gas supply	0.001	Maximal 135	9000	99.999
Gas/vapour filtration	0.01	Extremely heavy 105	3000	99.99
Particle filtration	0.1	Very, very heavy 85	1000	99.9
	1	Very heavy 65	300	99
	5	Heavy 50		95
	20	Moderate 35		80
		Light 20		

* Body surface 2.1 m² @ rate + 1SE rounded to 5 l/min increments (ref TS16976-1)

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Can you see clearly now ?

Standards

ISO

connect the world!

Fiction or reality

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