

# PFAC – Automotive A/C-Systems with R744 (CO<sub>2</sub>)



## Schedule – CW xx/20xx

**Training leadership:** N.N.

### Day 1

09:00	<b>N.N.</b>	Welcome, general remarks
subseq.	<b>N.N.</b>	Structure and function of the refrigerant circuit Properties of the refrigerant R744 compared to R134a or R1234yf
10:00	<i>Break</i>	
10:20	<b>N.N.</b>	Properties of the refrigerant R744 compared to R134a or R1234yf Transcritical refrigerant circuit in the p, h-diagram; system analysis
11:40	<i>Lunch break</i>	
12:30	<b>N.N.</b>	Transcritical refrigerant circuit in the p, h-diagram; optimal high pressure
13:50	<i>Break</i>	
14:00	<b>N.N.</b>	Transcritical refrigerant circuit in the p, h-diagram; optimal high pressure
15:05	<i>Break</i>	
15:15	<b>N.N.</b>	Optimal high pressure Safety issues with R744 Laboratory measurement on a transcritical R744 system
16:30	End of first day	

### Day 2

08:00	<b>N.N.</b>	Homework, open questions
anschl.	<b>N.N.</b>	Components: expansion device, compressor, gas cooler, evaporator, accumulator, internal heat exchanger (IHX)
10:00	<i>Break</i>	
10:20	<b>N.N.</b>	Components: expansion device, compressor, gas cooler, evaporator, accumulator, internal heat exchanger (IHX) Heat pump operation of the A/C-system
11:40	<i>Lunch break</i>	
12:30	<b>N.N.</b>	<i>Laboratory exercise</i> Measurement on a transcritical R744 system: operating behavior, variation of the refrigerant charge, influence of the IHX
		<i>10 minutes break between 13:45 and 14:20</i>
15:15	<b>N.N.</b>	Open questions, farewell
15:30	End of training	

*After 45 minutes of theory at the latest, there is a 5-minute break.*