



# Sample Gas Compressor Cooler **MAK 6**

## Application

The high performance and low maintenance compressor coolers series **MAK 6** are used for continuous extractive gas analysis. They serve primarily for exact constant lowering of the sample gas dew point and thus for drying of the humid sample gas flow. In this way water vapour cross sensitivities and volumetric errors are minimized and damages of the sensible analyzer are avoided. The MAK 6 series are long-standing proven and robust refrigerated coolers rolled-out in 1995 and still available within the scope of our special plant manufactory.

## Technology

The precise proportional temperature control in combination with the long-lasting hot-gas bypass system and the innovative corrosion resistant heat exchangers achieves low extremely constant dew points. Also load fluctuations and high thermal stress is compensated reliably. The two mono or dual heat exchangers with one or two gas paths each are built in a solid aluminium cylinder which guarantees an optimal energy exchange between sample gas and cooling medium. In addition, the aluminum cylinder is an effective cold storage that supports the compensation of unfavorable operating conditions. The **MAK 6** is equipped with exchangeable heat exchangers which allows an easy replacement without dismantling the device.

## Functions

The cooling system is filled with FCKW-free refrigerant R134a. As heat-exchanger materials PVDF, glass or stainless-steel are available. The sample gas cooler is equipped with a digital display for temperature monitoring and with a potential-free alarm contact. Two brackets allow a quick and easy wall mounting of the device.

- ✓ High performance compressor cooler
- ✓ 1 – 4 gas paths
- ✓ High performance heat exchangers
- ✓ Long-lasting hot-gas bypass system without switching the compressor
- ✓ Corrosion resistant easy to change PTFE / PVDF, stainless steel or glass heat exchanger
- ✓ Tendency or digital display for temperature and alarm
- ✓ Alarm contact
- ✓ Wall mounting housing



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## Technical data

MAK 6						
Type		MAK 6 Mini	MAK 6-1	MAK 6-2	MAK 6-3	MAK6-4
Voies		1	1	2	3	4
Échangeur de chaleur		1 x Mono	1 x Mono	2 x Mono	3 x Mono	2 x Dual
Matériau échangeur de chaleur	PVDF					
Débit gaz Vn1)	l/hr	1 x 100	1 x 250	2 x 250	3 x 250	4 x 100
Température d'entrée de gaz	°C			140		
Pression de service max.	bar			2,5		
Matériau échangeur de chaleur	Stainless steel SS316Ti					
Débit gaz Vn1)	l/hr	1 x 110	1 x 500	2 x 500	3 x 500	4 x 200
Température d'entrée de gaz	°C			180		
Pression de service max.	bar			100		
Matériau échangeur de chaleur	Verre					
Débit gaz Vn1)	l/hr	1 x 110	1 x 300	2 x 300	3 x 300	-
Température d'entrée de gaz	°C			160		
Pression de service max.	bar			2,0		
Température ambiante	°C			+5 to +45		
Point de rosée de sortie de gaz1)	°C			3,0 ± 0,5		
Volume mort par trajet de gaz	ml		137			70
Prêt à démarrer	min			10		
Données de conception						
Dimensions (W x H x D)	mm	247x298x272	290x366x355	290x422x341	290x366x355	
Poids	kg	13,0	19,0	21,0	25,0	21,0
Boîtier		Montage mural / RAL 7035				
Connexions gaz / condensats		DN 4/6 / Sortie de condensate par la bas D12				
Données électriques						
Alimentation		230V 50/60 Hz or 115V 50/60Hz				
Affichage de la température		Affichage de tendance ou affichage numérique en option				
Consignes d'alarme	°C	< +2.0 / > +10.0				
Taux de protection		IP 20 EN 60529 / EN 61010				
Consommation d'énergie	W	120 - 140	280 - 315	280 - 315	300 - 335	280 - 315
Contact d'alarme		Sans potentiel				

<sup>1)</sup> at inlet dew point 65°C and 25°C ambient temperature

## MAK 6 Mini



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