

# Portable Gas Conditioning System TGAk 3



The Buhler Model TGAk 3 is a complete, portable gas conditioning system in a rugged metal case.

The basic model consists of a gas cooler with condensate vessel, a gas pump, filter, moisture detector and a flow meter with needle valve. A version without the pump is also available.

The TGAk features a unique fail-safe interlock which inhibits the operation of the sample pump until the cooler has reached its operational temperature of 5°C. Additional features include a moisture sensor which also inhibits sample pump operation in the event moisture is detected downstream of the cooler. The sample then passes through a fine particulate filter to ensure analyzer cleanliness.

All wetted parts are available in a variety of materials for corrosive, non-corrosive and reactive applications.

Condensate removal is accomplished with either a condensate vessel, a manual drain valve or an integrated peristaltic pump.

Additional options or design variations are available upon request. Please contact one of our application specialists for further information.

- Outlet dew point and alarm threshold adjustable
- Improved cooling capacity

## Technical Data

Ambient temperature	+5..40°C <sup>1)</sup>	Cooling capacity (at 25°C)	90 kJ/h
Outlet dew point	adjustable, 2...20°C	Power supply	230 V, 50Hz or 115 V, 60Hz
Alarm threshold	adjustable, -3...-1K and +1...+7K with respect to the dew point	Power connection	2.5m cable with connector
Dew point stability statically over whole range	0.1K ±1.5K	Power consumption	max. 250 VA
Inlet dew point max	60°C <sup>1)</sup>	Ready for operation after	max. 10 min.
Inlet gas temperature	110°C <sup>1)</sup> (180°C <sup>1)</sup> *)	Dimensions (without pipe)(HxWxD)	appr. 510x355x270
Gas flow standard version	appr. 10..max.110 l/h <sup>1)</sup>	Weight of standard version	appr. 16 kg
acid-resistant version	appr. 10..max.110 l/h <sup>1)</sup>	Condensate draining	Condensate vessel Peristaltic pump
Gas terminals	quick coupling*		manual valve quick coupling
Rel. pressure max.	0 bar		
CSP4xxxx only	1 bar		

<sup>1)</sup> Under restriction of the available cooling power. See the PKE 521 data sheet for specifications. You may as well use our gas cooler selection programme or simply call us.

\* 180°C inlet gas temperature only with CSP5XX00 version. Gas inlet then with bulkhead union.

## Materials in Gas Path

Standard filter element	Glass, PPH, Viton, EPDM, stainless steel, PA 12, PC glass fibre
Acid-resistant materials filter element	PVDF, glass, teflon, stainless steel, PTFE, Kalrez sintered PTFE

## Please indicate with order

### Portable gas conditioning system

The part number consists of a code for the available options.  
Tick in desired code at x marked positions.

Part no.	Description
CSP	
x	00
x	TGAK 3
x	Standard version
1	Acid-resistant materials
2	N.A.
3	Without pump
4	180°C inlet gas temp. ; acid-resistant materials
5	
1	Supply 115 V
2	Supply 230 V
1	Condensate vessel with cock for manual draining
2	Peristaltic condensate pump included
00	Without further options



case trolley

Example: portable gas conditioning system TGAK 3 (=CSP), higher resistive materials (=2), supply 230V (=2) with condensate vessel (=1) gives part number CSP 2 2 1 00

## Accessories

Part no.	Description	Material	Package
CS PX 00012	Removable case trolley with 50mm wheels	Aluminium	1 pcs.

## Spare Parts

Part no.	Description	Material	Package
41 15 00 10	Filter element for CSP1xx00 and CSP4xx00	Fibre glas	5 pcs.
41 15 10 50	Filter element for CSP2xx00	PTFE	8 pcs.
91 24 030027	Spare tube (90° connection) for peristaltic pump	Norprene	1 pc.