

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 ¹⁾
Outlet dew point	adjustable, 2...20°C
Alarm threshold	adjustable, -3...-1K and +1...+7K with respect to the dew point
Dew point stability statically over whole range	0.1K ±1.5K
Inlet dew point max	60°C ¹⁾
Inlet gas temperature	110°C ¹⁾ (180°C ¹⁾ *)
Gas flow standard version	appr. 10..max.110 l/h ¹⁾
acid-resistant version	appr. 10..max.110 l/h ¹⁾
Gas terminals	quick coupling*
Rel. pressure max.	0 bar
CSP4xxxx only	1 bar

Cooling capacity (at 25°C)	90 kJ/h
Power supply	230 V, 50Hz or 115 V, 60Hz
Power connection	2.5m cable with connector
Power consumption	max. 250 VA
Ready for operation after	max. 10 min.
Dimensions (without pipe)(HxWxD)	appr. 510x355x270
Weight of standard version	appr. 16 kg
Condensate draining	
Condensate vessel	manual valve
Peristaltic pump	quick coupling

¹⁾ 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	TGAK 3
x	Standard version
x	Acid-resistant materials
00	N.A.
1	Without pump
2	180°C inlet gas temp. ; acid-resistant materials
3	
4	
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.