Suction Throttle Control
Types GDKS and ODKS

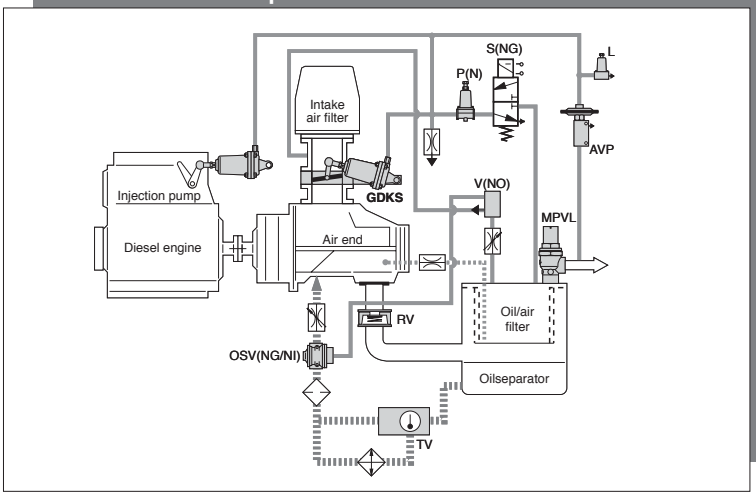
Application
For both stepless and two point air intake capacity control of screw compressors.

Function
The butterfly valve is actuated by a servo cylinder.
Types GDKS are normally closed. They open with increasing signal pressure.
Types ODKS are normally open. They close with increasing signal pressure.

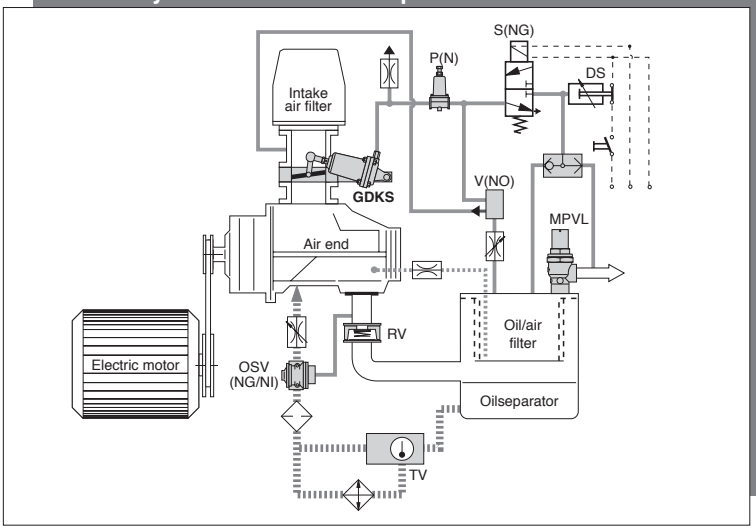
Installation
At the suction flange of a screw compressor. Space for opening of the butterfly valve disc has to be considered by using an intake duct and a flange adaptor. Installation position is optional for valve sizes up to 150 mm. Valves of sizes 200 to 300 mm are installed with the shaft horizontal.

⚠ **Attention! Never attempt to disassamble the valve whilst under pressure!**

Portable screw compressor with GDKS



Stationary industrial screw compressor with GDKS



Versions available
Standard versions:
Butterfly valve type DK (datasheet R206E) actuated by servo cylinder ZAED40 (datasheet R266E). Butterfly valve sizes 200 mm to 300 mm are actuated by two servo cylinders. Servo cylinders are available with various control springs for different servo pressure ranges. Minimum flow at closed position is achieved either by adjustment of the servo cylinder or by drilling a hole through the butterfly valve disc.

Special versions (on request, not pictured):
Assemblies with servo cylinder ZBED40. Assemblies with cylinder for two point control only. Valve housings with special dimensions for the compressor's suction flange and air intake duct flange.

Adjustment
Suction throttle control assemblies are supplied preadjusted. The closed position of the suction throttle control can be adjusted:
Sizes 50 mm to 150 mm:
Loosen locknut at the cylinder rod. Put a pin or a small screw driver through the hole in the cylinder rod. The butterfly valve disc can be opened or closed a few millimeters by one or two turns of the cylinder rod.
Sizes 200 mm to 300 mm:
Loosen locknut of the stop screw in the ring housing. The excentric cone of the stop screw can be used to adjust the closed position of the butterfly valve disc by 1 or 2 mm.
Nozzle for start-up and idling bypass: A hole may be drilled though the butterfly valve disc.

Maintenance
The service manual W265RCC contains information regarding the maintenance intervals. While disassembling the valve for inspection, cleaning or retrofitting purposes, also refer to the respective information contained in the service manual W265RCC.
For the actual service manuals visit our homepage www.hoerbigerkompressortechnik.de.

HOERBIGER KOMPRESSORTECHNIK GMBH
Im Forchet 5 • D-86956 Schongau
Phone +49 (0)8861-210-0 • Fax +49 (0)8861-210-3273
E-mail: rcc@hks.hoerbiger.de • www.hoerbigerkompressortechnik.de

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Dimension table GDKS and ODKS (in mm)

Typ	DN	C	B	J
GDKS / ODKS65 [1)]	65	97.5	25	52.5
GDKS / ODKS80 [1)]	80	104	25	60
GDKS / ODKS100	100	115	25	70
GDKS / ODKS125	125	130.5	35	85
GDKS / ODKS150	150	145	35	97.5
GDKS / ODKS200	200	182	40	130
GDKS / ODKS250	250	222	40	155
GDKS / ODKS300	300	250	45	190

[1)] upon request

Ordering details:
Standard executions:
Article No. or valve type, range of the signal pressure for the servo cylinder ZAED40, diameter of the idling nozzle in the butterfly disc (supplied without idling nozzles, unless specified). Example: GDKS100, control spring for 1 to 3.5 bar (g), bypass nozzle diameter 6 mm.

Specials versions:
detailed specification, sketch.

Dimensions ODKS65-150

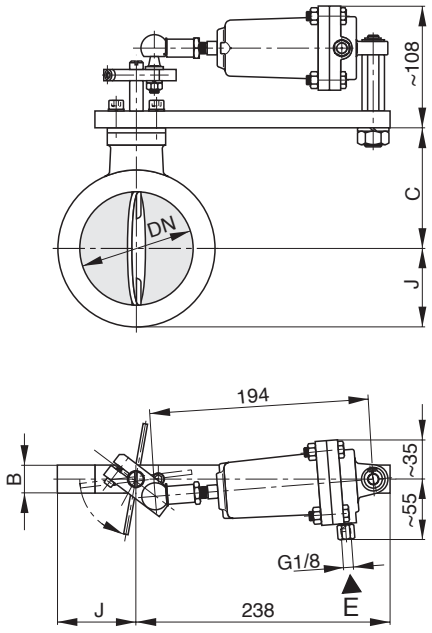

Fig. 3

Dimensions ODKS200-300

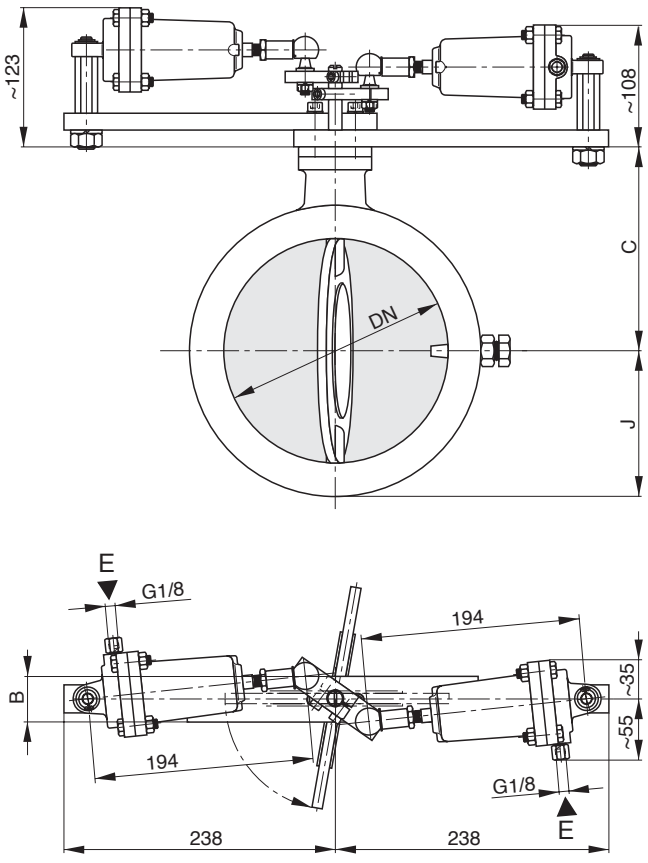

Fig. 4

Details

Normally closed types Normally open types		GDKS65 ODKS65	GDKS80 ODKS80	GDKS100 ODKS100	GDKS125 ODKS125	GDKS150 ODKS150	GDKS200 ODKS200	GDKS250 ODKS250	GDKS300 ODKS300
Nominal diameter DN	mm	65[1)]	80[1)]	100	125	150	200	250	300
Butterfly valve type (for detail data see R206E)		DK65	DK80	DK100	DK125	DK150	DK200	DK250	DK300
Weight	kg	3.3	3.6	3.8	5.8	6.7	13.3	16	21
Servo cylinder ZAED40 (for detail data see R266E)	pcs.	1	1	1	1	1	2	2	2
Max. working pressure PS	bar (g)	1							
Control signal	bar (g)	equivalent spring, maximum pressure: 7 for two point control 10 for stepless control Medium see datasheet R266							
Temperature range	°C	-25 to +90							
Medium		oily pressurized air, filtered • recommended compressed air quality according to DIN ISO 8573-1, class 5 Reference oil: see www.hoerbigerkompressortechnik.de							
Start-up and idling bypass		adjustable stop, idling nozzle on order (please specify diameter)							
Installation dimensions		see table							
Installation position		sizes 65 to 150: optional, sizes 200 to 300: valve shaft horizontally							
Materials		butterfly valve DK: cast iron, steel, perbunan servo cylinder ZAED: aluminium, stainless steel, plated steel, bronze, polyamid, delrin others: steel, aluminium							

[1)] upon request

Dimensions GDKS65-150

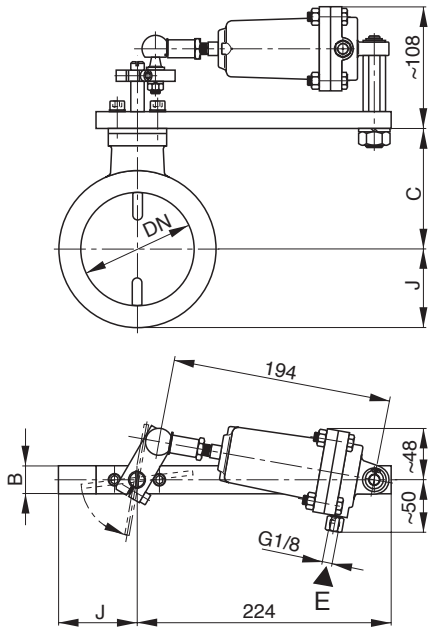

Fig. 1

Dimensions GDKS200-300

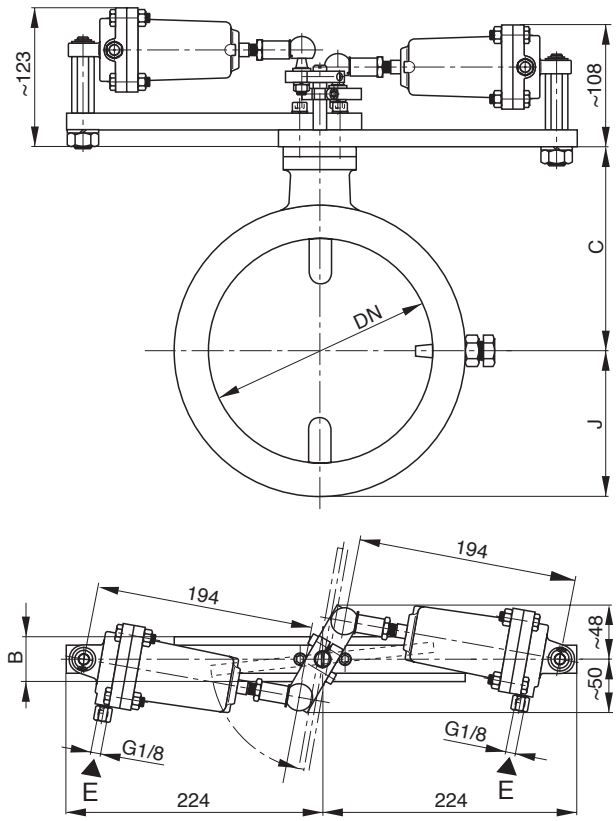

Fig. 2