

## THE WATER-COOLED INDUSTRIAL RANGE

Energy-efficient compressor systems for air and gases

- › 25 – 420 bar
- › 55 – 1716 m<sup>3</sup>/h

- › WATER-COOLED
- › PRESSURE-RESISTANT CRANKCASES
- › FOR AIR, NITROGEN, CNG AND RARE GASES



**The water-cooled industrial range from BAUER provides high F.A.D.s while requiring little space and offering a wide spectrum of primary pressures.**

The pressure-resistant crankcases of the block ranges K23, K24, K26 and K52 minimize the maintenance requirements and allow for an outstandingly compact unit design. The external oil sump makes inclination angles of up to 30 degrees possible, which is a precondition for mobile use on vehicles and installation on ships.

## The unit ranges K23 and K24

For more than 65 years, BAUER KOMPRESSOREN as a specialist provider has offered complete turn-key compressor systems in the high and medium pressure range. Owing to the modular construction and innumerable configuration possibilities, the systems from BAUER can be perfectly adapted to nearly every customer requirement and enlarged later if required.

### › 30-37 kW / 25-420 bar



*K23 unit, water-cooled, vertical execution*

The vertical unit configuration of the K23 range combines a minimum floor space requirement with high efficiency.

- › For air, nitrogen, rare gases and natural gas
- › The vertical execution and the v-belt drive offer compact dimensions and at the same time allow flexible adaptation to meet the most varied of customer requirements.
- › The pressure-resistant crankcase is provided with a dry sump lubrication for better oil cooling and inclinations of up to 30°.
- › Units in booster format are available with up to 16 bar or 38 bar primary pressure.
- › Optionally, an air-cooled version in horizontal execution is available, as needed.

### › 55-90 kW / 40-350 bar



*K24 unit*

Thanks to its trendsetting unit design, the directly coupled K24 range offers very high F.A.D.s in a particularly compact construction.

- › For air, nitrogen, rare gases and natural gas
- › The electrical drive is directly coupled to the compressor block in order to minimize the floor space required.
- › The crankcase in pressure-resistant execution efficiently prevents blow-by losses during compression of pre-compressed air and gases.
- › Simple operation, operator friendliness and easy maintenance were the top priorities on the demanding specification.

## The unit ranges K26 and K52

**55-160 kW / 25-420bar**



*K26 unit*

The new unit ranges K26 and K52 from BAUER combine highest F.A.D.s with an extraordinary compact unit design.

Compared to the four-cylinder K26 units, the K52 units offer twice as much F.A.D.s owing to their eight cylinders with a similar block construction.

- › For air, nitrogen, rare gases and natural gas
- › The electrical drive is directly coupled to the compressor block in order to minimize the floor space required.
- › Units in booster format are available with up to 16 bar or 38 bar primary pressure.
- › The pressure-resistant crankcase is provided with a dry sump lubrication for better oil cooling and inclinations of up to 30°.
- › The blocks work with very low compression ratios. In this way, the compression temperatures can be kept at a low level in the different stages, thus minimizing maintenance requirements.
- › A special piston construction minimizes the usual blow-by. Because of the low losses, a very high efficiency is reached.
- › The crankcase can be combined with a wide variety of cylinders, allowing flexible adaptation to meet the customer requirements relating to pressure and F.A.D.
- › In the coupling bell housing, a radial fan is installed for cooling purposes. This assures a considerably increased life time of the coupling.

**90-315 kW / 25-420 bar**



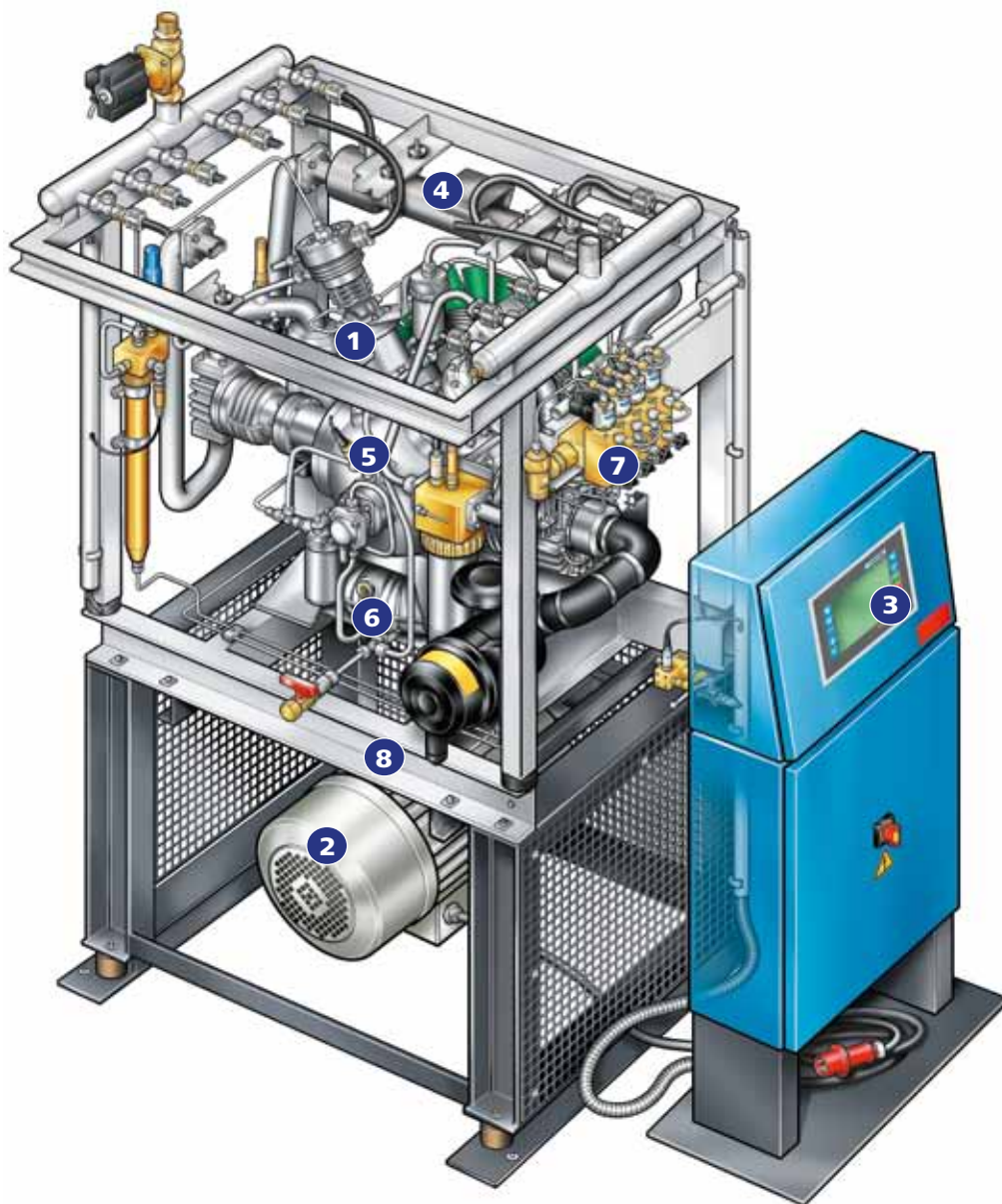
*K52 block*



## Perfect compressor technology in detail

Our product philosophy consists of developing complete unit concepts, in collaboration with our customers, combining the legendary reliability of our compressor systems with highest efficiency in the daily production process.

BAUER guarantees maximum consistency of quality by conducting comprehensive quality assurance measures during and after production, in accordance with DIN EN ISO 9001.



- |   |                    |   |                                   |
|---|--------------------|---|-----------------------------------|
| 1 | COMPRESSOR BLOCK   | 5 | PRESSURE-RESISTANT CRANKCASE      |
| 2 | 3-PHASE MOTOR      | 6 | OIL SUMP                          |
| 3 | COMPRESSOR CONTROL | 7 | AUTOMATIC CONDENSATE DRAIN DEVICE |
| 4 | WATER COOLING      | 8 | INTAKE FILTER                     |

## ECONOMIC OPERATION

For particularly economic and safe operation, our units are rigorously optimized for continuous operation and demanding operating conditions.

- › Our compressors and boosters are equipped ex works with particularly economical three-phase motors in accordance with the energy efficiency class IE3.
- › Thanks to the legendary reliability, longevity and the low maintenance requirements of the compressor blocks from BAUER, the operational running costs can be minimized.
- › Moreover, the availability of spare parts for our units for decades to come guarantees the operator a high degree of investment protection.



*Automatic condensate drain*

## VARIABLE USE

Several drive variants and container solutions allow for tailor-made systems for a wide variety of applications.

- › In addition to electrical drives, units for mobile use can be equipped with diesel engines.
- › Container installations for mobile or stationary use are also part of our standard program, with either electrical or diesel drive.



*B-CONTROL II compressor control*

## FULL CONTROL

Our sophisticated electronic compressor control B-CONTROL II regulates and monitors the complete compressor.

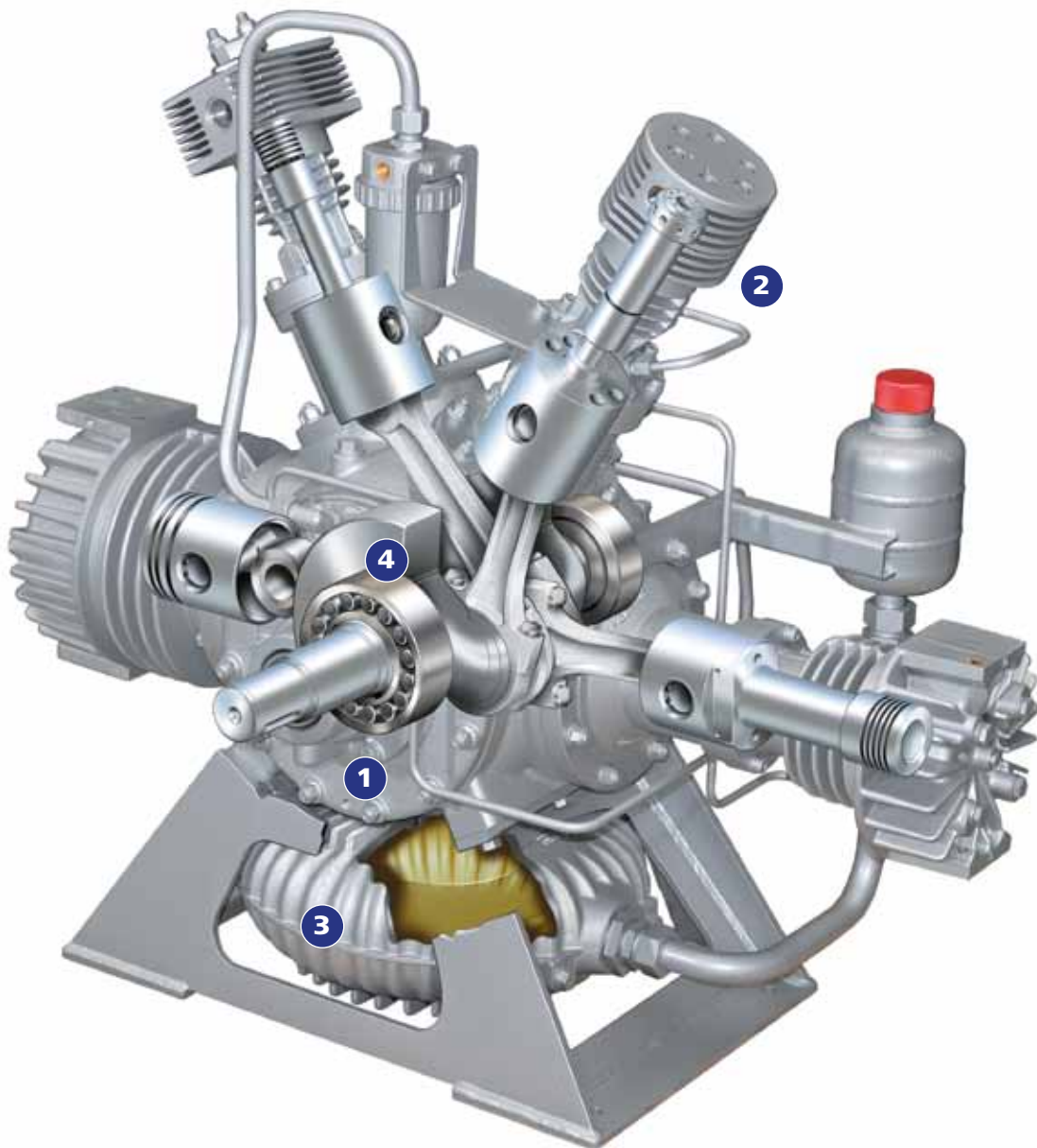
- › The menu navigation is made easy and comfortable to use via an easy-to-read touch screen display and direct selection keys.
- › In addition to individual, customer-specific adaptation and extension possibilities, standard interfaces such as USB, Ethernet, Modbus are available.
- › The integrated function of interconnected operation allows the basic load change or indeed a duty/stand-by operation of up to 4 compressors, the B-CONTROL II being charged with the master function.
- › The B-CONTROL II comprises a maintenance management system. Due maintenance tasks are indicated; moreover, it informs about the current maintenance state of single components and security-relevant pressure vessels.
- › The intermediate pressures and temperatures of all stages are monitored. In the event of any deviation from the permissible tolerance, a message is displayed and the unit is switched off.
- › The compressor control B-CONTROL II is installed in a separate module next to the unit, allowing flexible positioning in the event of difficult installation conditions on site.

## The blocks - the heart of the units

### UNCOMPROMISED QUALITY

Over 65 years of experience in the construction of medium and high pressure systems and the production in the most modern factory of its kind guarantee the legendary reliability and longevity of our compressor blocks.

Each individual compressor block undergoes an endurance test and each unit is submitted to a comprehensive functional check and safety inspection.



- 1** Pressure-resistant crankcase allows primary pressures up to 16 bar without any blow-by losses
- 2** Water-cooled valve heads for optimized cooling<sup>1)</sup>
- 3** Dry sump lubrication allows inclinations of up to 30° in all directions<sup>1)</sup>
- 4** Main bearing, designed for robust operation

1) Not at the K24-Block



## HIGH DURABILITY

The advanced cooling system with generously dimensioned coolers, in combination with large surface ribbed cylinders, insures optimum cooling at each of the compressor stages.

- › As with the K23 range, water-cooling is available, making for both a very compact construction and reduced noise levels.
- › Extremely low vibrations allow installation without the use of a foundation.
- › Plasma nitrated cylinders with special honing optimize the life time and the oil consumption.

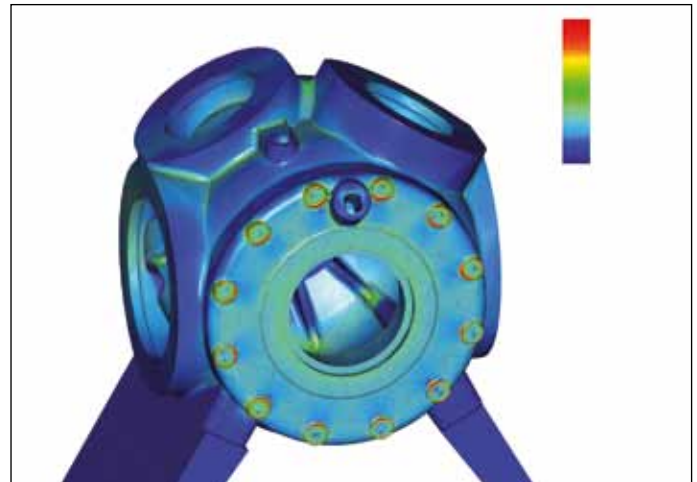


*Water cooled valve head*

## EFFICIENT WATER COOLING

More than 80% of the heat to be removed is generated by the compression in the various stages; this is dissipated via the heat exchangers.

- › The stainless steel heat exchanger from BAUER guarantees the long life of the compressor, optimal functioning and cooling and therefore high efficiency of the entire compressor unit.
- › In addition, some blocks are equipped with water cooling for the valve heads in order to reduce the operating temperatures.



*Computeroptimized crankcase construction (FEM)*

## LOW OPERATING COSTS

BAUER compressors offer extremely high degrees of efficiency and high-quality reliable individual components, leading to economic use.

- › Long maintenance intervals for valve checking and oil changes keep the operating costs for the unit at a minimum and increase the availability.
- › Optimum flow cross-sections and valve location insure efficient cylinder filling and minimal cylinder clearance of the unit at low power consumption and high efficiency.
- › The resilient industrial roller bearings rated for continuous operation are designed for 30,000 operating hours and more.

## INDIVIDUALLY ADJUSTABLE AUTOMATIC CONDENSATE DRAIN

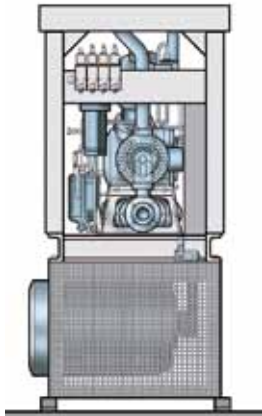
All compressor stages are provided with an individually controlled condensate drain valve.

- › In this way, the adjustment can be optimized depending on the conditions of use and environment. This guarantees optimal operation independent of the local conditions.

## Dimensions and configurations

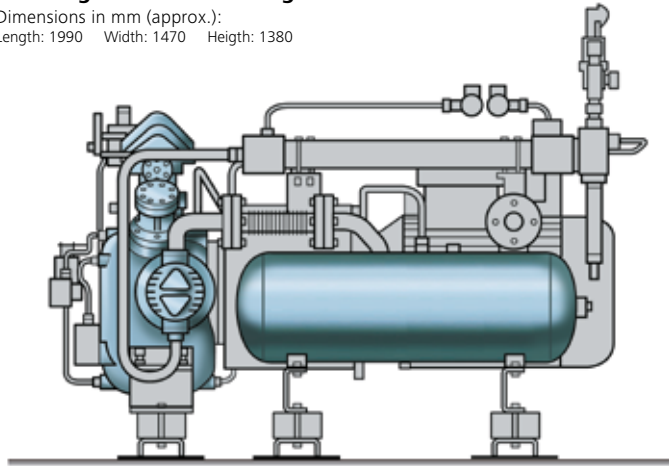
### K23 range - Vertical design

Dimensions in mm (approx.):  
Length: 1360 Width: 875 Height: 2040



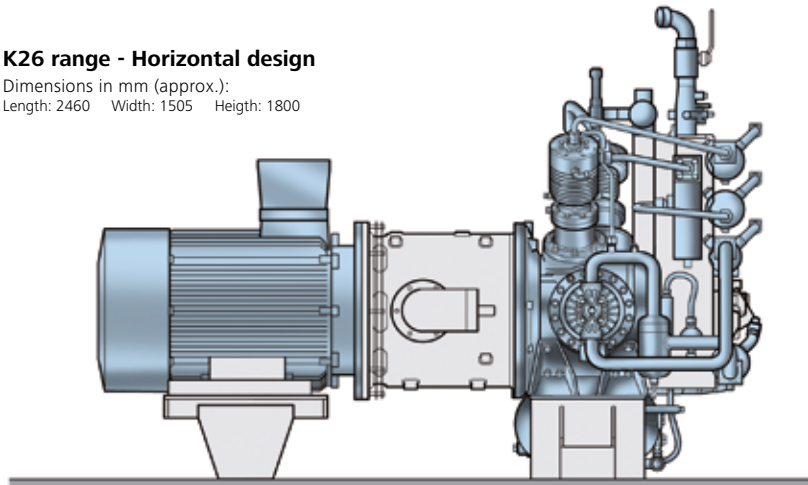
### K24 range - Horizontal design

Dimensions in mm (approx.):  
Length: 1990 Width: 1470 Height: 1380



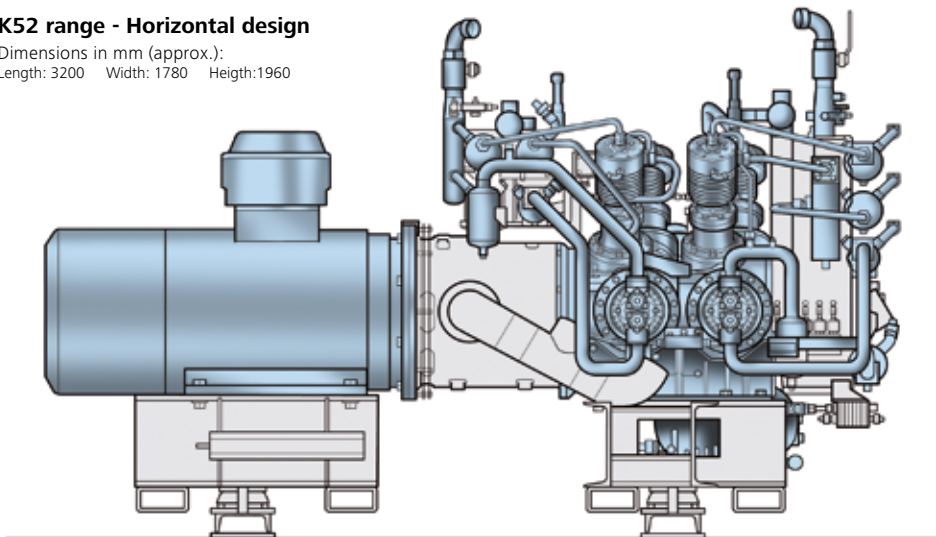
### K26 range - Horizontal design

Dimensions in mm (approx.):  
Length: 2460 Width: 1505 Height: 1800



### K52 range - Horizontal design

Dimensions in mm (approx.):  
Length: 3200 Width: 1780 Height: 1960





## Technical Data

Model	F.A.D <sup>1)</sup>		Intake pressure	Final pressure		Number of stages	Speed	Motor power	Power consumption <sup>2)</sup>	Net weight
				min	max				at final pressure	approx.
	l/min	m³/h	bar (g)	bar	bar		min <sup>-1</sup>	kW	kW	kg
Compressor, 25 to 63 bar										
B 26.4-55	3570	214	atm.	25	63	3	985	55	53	2710
B 26.4-90	5400	324		25	63		1485	90	80	2960
Compressor, 90 to 350 bar <sup>3)</sup>										
I 23.0-30	1300	78	atm.	90	350	4	1210	30	27	1150
I 23.0-37	1500	90					1420	37	32	1150
I 24.0-55	2100	126	atm.	90	350	4	1485	55	45	1500
I 26.0-55	2410	145	atm.	90	350	4	985	55	51	2690
I 26.0-90	3650	219		90	350		1485	90	77	2950
I 52.0-110	4820	290	atm.	90	350	4	985	110	102	4000
I 52.0-160	7300	438		90	350		1485	160	154	4000
Booster, 25 to 100 bar										
GIB 23.8 - 37	2800	168	4	25	40	2	1140	37	19,8	1170
	3920	235	6	30	50				25,9	
	5050	303	8	40	63				33	
	6180	370	10						35,6	
GIB 23.7-37	2060	124	4	40	25	40	1140	37	14,5	1160
	2890	173	6	60	35	60		37	21,2	
	3700	222	8	80	40	80		37	27,6	
	4530	271	10	80	50			37	30,2	
	5360	321	12	80				37	32,3	
GIB 24.20-90 <sup>3)</sup>	9330	560	8	40	80	2	1485	90	70	1770
	11400	684	10	50	100				86	
GIB 26.6-160	13000	780	4	15	20	2	1485	75	67	3530
	18200	1092	6	15	25			90	84	
	23400	1404	8	20	30			110	101	
	28600	1716	10	20	40			160	133	
GIB 26.8-160	9200	552	4	25	40	2	1485	75	66	3500
	13000	780	6	30	50			110	87	
	16600	996	8	40	63			132	108	
	20400	1224	10	40	75			160	133	
GIB 26.7-132	6500	390	4	25	50	2	1485	75	52	3360
	9100	546	6	35	63			75	69	
	11700	702	8	40	100			110	98	
	14300	858	10	50	100			132	108	

1) Measured acc. to ISO 1217  
 Values valid for air and nitrogen at 50Hz  
 Correction factor natural gas: FAD air x 0.9  
 Correction factor helium: FAD air x 0.94  
 Correction factor argon: FAD air x 1.04  
 Other gases on request

2) At max. final pressure  
 Values valid for air and nitrogen at 50Hz  
 Correction factor natural gas: x 0.9  
 Correction factor helium: x 1.06  
 Correction factor argon: x 1.15

3) Not suitable for helium/argon

**For rare gases some restrictions partly apply to intake and final pressure.**

## Technical Data

Model	F.A.D <sup>1)</sup>		Intake pressure	Final pressure		Number of stages	Speed	Motor power	Power consumption <sup>2)</sup>	Net weight
				min	max				at final pressure	approx.
	l/min	m³/h	bar (g)	bar	bar		min <sup>-1</sup>	kW	kW	kg
Booster, 90 to 350 bar										
GIB 23.10-37	1330	80	2	90	200	4	1140	37	19	1150
	1780	106	3	150	300				26,3	
	2220	133	4	200	350				32,2	
	2440	146	4,5						34,5	
GIB 23.12-37	1550	92	4,5	90	200	4	1140	37	18,5	1180
	1960	117	6	150	300				24,8	
	2500	151	8	200	350				30,9	
	3100	185	10						35,4	
GIB 23.13-37	1970	118	8	150	200	4	1140	37	20	1180
	2410	144	10		300				26,4	
	2850	170	12	200	350				31	
	3300	197	14	200					34	
GIB 23.14-37	1850	111	16	150	250	3	1140	37	17,5	1180
	2280	137	20		300				21,5	
	3600	216	30	200	350				31	
	4500	271	38						34,5	
GIB 24.11-75 <sup>3)</sup>	2200	132	1	90	200	4	1485	75	35	1660
	3200	192	2	150	300				51	
	4200	252	3	150	350				64	
	5240	314	4	200	350				74	
GIB 24.12-75 <sup>3)</sup>	2500	150	4	120	300	4	1485	75	31	1660
	3500	210	6	150	350				37	
	4500	270	8	200	350				43	
	5500	330	10	220	350				47	
GIB 24.13-55 <sup>3)</sup>	2480	149	8	150	350	4	1485	55	31	1500
	3300	198	11	150	350				37	
	4140	248	14	200	350				43	
	4700	282	16	250	350				47	
GIB 26.10-132	4900	294	2	90	200	4	1485	75	71	3350
	6700	402	3	150	350			110	103	
	8500	510	4	200				132	123	
	9400	564	4,5	200				132	131	

1) Measured acc. to ISO 1217  
 Values valid for air and nitrogen at 50Hz  
 Correction factor natural gas: FAD air x 0.9  
 Correction factor helium: FAD air x 0.94  
 Correction factor argon: FAD air x 1.04  
 Other gases on request

2) At max. final pressure  
 Values valid for air and nitrogen at 50Hz  
 Correction factor natural gas: x 0.9  
 Correction factor helium: x 1.06  
 Correction factor argon: x 1.15

3) Not suitable for helium/argon

**For rare gases some restrictions partly apply to intake and final pressure.**

Model	F.A.D <sup>1)</sup>		Intake pressure	Final pressure		Number of stages	Speed	Motor power	Power consumption <sup>2)</sup>	Net weight
				min	max				at final pressure	approx.
	l/min	m³/h	bar (g)	bar	bar		min <sup>-1</sup>	kW	kW	kg
Booster, 90 to 350 bar										
GIB 26.12-132	5100	306	4,5	90	250	4	1485	75	66	3350
	6500	390	6	150	350			110	86	
	8300	498	8	200				110	102	
	10200	612	10	200				132	116	
GIB 26.13-132	7600	456	10	150	350	4	1485	110	87	3350
	9000	540	12	150				110	98	
	10350	621	14	200				132	107	
	12400	744	17	250				132	119	
GIB 26.14-110	5100	306	17	150	250	3	1485	55	47	3350
	6000	360	20	150	350			75	59	
	9300	558	30	200				90	78	
	11700	702	38	250				110	88	
GIB 52.10-315	9800	588	2	90	200	4	1485	160	142	4800
	13400	804	3	150	350			250	206	
	17000	1020	4	200				250	246	
	18800	1128	4,5	200				315	262	
GIB 52.12-250	10200	612	4,5	90	250	3	1485	160	132	4330
	13000	780	6	150	350			200	172	
	16600	996	8	200				250	204	
	20400	1224	10	200				250	232	
GIB 52.13-250	15200	912	10	150	350	4	1485	200	174	4330
	18000	1080	12	150				200	196	
	20700	1242	14	200				250	214	
	24800	1488	17	250				250	238	
GIB 52.14-200	10200	612	17	150	250	3	1485	110	94	4200
	12000	720	20	150	350			132	118	
	18600	1116	30	200				160	156	
	23400	1404	38	250				200	176	
Booster, 200 to 420 bar										
GIB 23.5-37 <sup>3)</sup>	2400	145	10	200	420	4	1140	37	29,5	1180
	2850	170	12						33	
GIB 26.5-132 <sup>3)</sup>	6500	390	6	200	420	4	1485	110	90	3400
	8300	498	8	250				132	107	
	9200	552	9	250				132	115	



# The BAUER industrial program

**BAUER**  
KOMPRESSOREN

**THE AIR-COOLED INDUSTRIAL RANGE**

Efficient compressor systems for air and gases

- › 25 – 500 bar
- › 39 – 408 m³/h
- › AIR-COOLED
- › V-BELT DRIVEN
- › FOR AIR, NITROGEN, AND RARE GASES




Companies that rely on absolute operating safety and investment security in their inspection or production processes have confidence in 65 years of BAUER-experience in High-Pressure Systems Technology. Whatever application you want to realize with medium or high pressure air or nitrogen, we support you in every respect. Our service includes project planning, installation of complete turn-key systems, certifications of all kinds and, of course, a reliable after sales service as well as a guaranteed spare parts supply for decades worldwide.

[www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)

**BAUER**  
KOMPRESSOREN

**THE G-RANGE**

Compressor units for rare gases

- › 25 – 350 bar
- › 85 – 5360 l/min
- › FOR HELIUM AND ARGON
- › AIR AND WATER-COOLED
- › FOR MEDIUM AND HIGH PRESSURE




High-performance complete system solutions for reliably compressing, purifying, storing, distributing and recovering of rare gases. The compressors from BAUER which are especially modified for the treatment of rare gases guarantee safe and reliable operation for your process. Filter systems from BAUER provide for a consistently high gas quality. The B-CONTROL compressor control and an optional noise absorbing construction offer high user convenience. For special application conditions, water-cooled compressors and boosters are available.

[www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)

**BAUER**  
KOMPRESSOREN

**MINI - VERTICUS III**

Compact Air and Nitrogen Compressor

- › 85 – 1550 l/min
- › 25 – 350 bar
- › SOUNDPROOF
- › COMPACT AND POWERFUL




**The new MINI-VERTICUS III.**

An approved unit in a new design, that sets new standards in technical excellence and ergonomics.

The perfect unit for small rooms and industrial applications - either as a booster or compressor drawing air from the atmosphere.

Designed for long life and low operating costs.

[www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)

**BAUER**  
KOMPRESSOREN

**VERTICUS 5 INDUSTRY**

The Compressor System for Air and Nitrogen

- › 85 – 1980 l/min
- › 25 – 500 bar
- › FOR MEDIUM AND HIGH PRESSURE
- › PROVEN RELIABILITY
- › WIDE VARIETY OF USES




**The heavy duty system with excellent reliability for compressing air and nitrogen.** The BAUER B-CONTROL combines fully automatic start-stop operation with maximum user confidence. The optional BAUER purification systems offers high gas and air purity. Units available in standard open or Super Silent version.

[www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)

**BAUER**  
KOMPRESSOREN

**THE P-PURIFICATION SYSTEM**

For air and gas of the highest quality

- › 200 – 3500 l/min
- › 140 – 420 bar
- › FOR PURIFICATION OF AIR, N₂ AND RARE GASES
- › GENERATES PUREST BREATHING AIR, INDUSTRIAL AND MEDICAL AIR




**The P-purification system from BAUER guarantees totally reliable air and gas purification for the application in question.**

No matter whether you count on the purest breathing air as a diver or firefighter or if you have to trust in perfectly purified process air in the industrial field: 65 years of BAUER experience in purification, intensive research and the toughest material tests guarantee uncompromising quality and absolute safety.

[www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)

**BAUER**  
KOMPRESSOREN

**THE SECCANT RANGE**

Regenerative dryer for air and gas

- › 1500 – 3500 l/min
- › 90 – 420 bar
- › EASY INTEGRATION
- › B-CONTROL COMPRESSOR CONTROL
- › OPTIONAL FILTER MONITORING
- › GAS-TIGHT HELIUM CONSTRUCTION




**Drying air and gases economically. At high pressures and high throughput. This is the strong point of the SECCANT regenerative dryer from BAUER.**

For dehumidifying and purifying air, nitrogen and rare gases, the SECCANT regenerative dryers offer a tailor-made system solution for every application. For solutions requiring absolute continuous operation, where the process do not permit any interruption, can also be used in combination with a bypass filter system from BAUER. By means of an external control room, online control and online monitoring of SECCANT and the compressor unit can be implemented.

[www.bauer-kompressoren.de](http://www.bauer-kompressoren.de)