



KOMPBERG

Direct Drive screw compressors, Oil free compressors
Booster Compressor (40bar), Portable Diesel air compressors

Quality product
Excellent service



Oil-injected Screw Compressor

KOMPBERG BSD

Our screw compressors are the most modern and economical way of compressed air generation in the medium range these days.

Highly economical, long lifespan, easy and cost-effective maintenance are the most important criteria in the development of our new products.

KOMPBERG made from different effective parts:

- Large removable doors are fitted as standard on BERG Screw compressors and the housing provides ample space for convenient layout of the components.
- Reliable Direct drive – durable and consistently efficient. BERG design principles prevent reduced output and premature wear in this essential drive component.
- Multiple oil pre-separation



rapid degassing and low foam formation guarantee the compressed air quality.

- reliable centerpiece Airend State-of-the-art production techniques guarantee the supreme precision of rotor gears.
- A distortion-resistant sound isolation box reduces vibration and noise to extremely low levels.
- BERG electronic control PLC can increase safety and fewer costs.

All Our Compressors are equipped as Direct Drive

Drive 1:1 means that the Airend and motor are directly connected. This means that there are no transmission losses. BERG's directly driven screw compressors deliver outstanding performance and make possible great savings in energy.

The drive motor and the air end in one-to-one drive series compressors are designed to operate at the same low speed.

This enables the drive and compression units to be linked via a maintenance-free coupling which avoids the transmission

losses with gear driven units. One-to-one drive reduces the number of components needed in comparison with gear drive, significantly increasing reliability and service life. Sound levels are also considerably lower.

The airend in each BSD model is designed to specifically match air demand and ensures outstanding efficiency through low-speed operation.

Direct Drive advantages:

- no transmission losses
- larger air ends running at low speeds are more efficient
- drive lowers maintenance costs

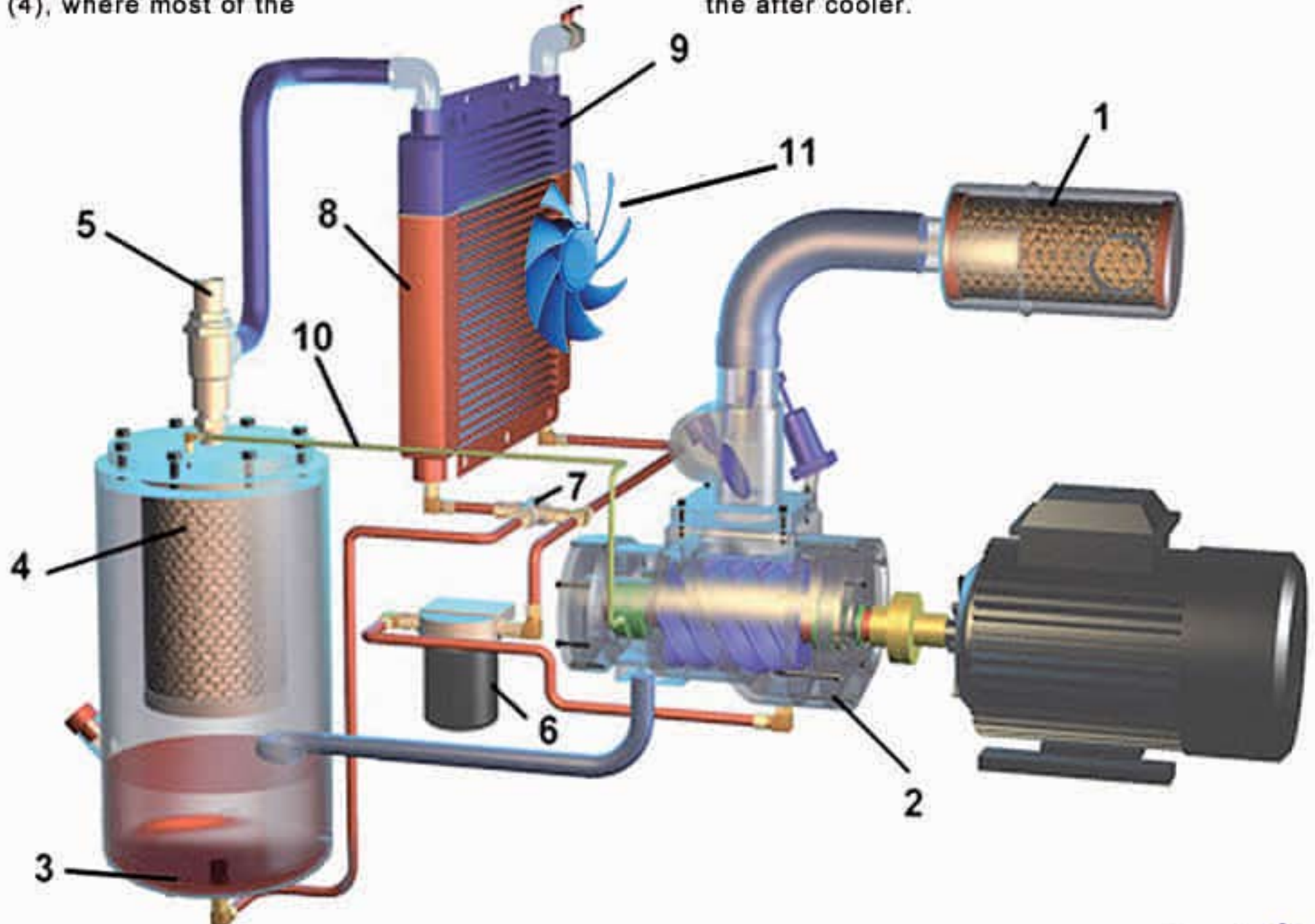
Operation Principle Of KOMPBERG BSD

Ambient air is sucked through the filter (1) then it flows through the suction regulator equipped with the variable control valve adapting to prompt demand for compressed air. The suction regulator operation is controlled by the electrical unit connected to the pressure sensor. Oil previously treated in the filter (2) is injected into the air compressed in the screw air end (3). The oil ensures lubrication, sealing and cooling of the screw air end. The oil and air mixture is compressed in spaces between the screw impellers and then flows into the oil separator tank (4), where most of the

oil is precipitated from the mixture.

From the separator tank, air flows through the fine filter (5), minimum pressure valve (6), to the after cooler (7), where it is cooled to a temperature 10°C higher than the ambient temperature.

The oil collected in the oil separator is carried away with the pipe (8) to the screw air end. The oil flow through the after cooler (9) is controlled by the thermostat (10). The suction and oil filters are equipped with the pollution sensors. The air flow through the fan (11) tries to cool the after cooler.



Oil-injected Screw Compressor

KOMPBERG BSD

BERG just has 1:1 direct drive screw compressors as KOMPBERG BSD series. An innovative, user-friendly concept totally geared to performance and economy.

Indirect drive screw compressors, the direct drive connects the compressor block with the drive motor in a 1:1 relationship.

The almost loss-free power transmission guarantees high-performance compressor operation.

The regular maintenance requirement is reduced to lubrication of the motor. Additionally, large and low speed airends provide more air for less energy consumption.



- 1- Direct drive – soft start, almost zero loss power transmission
- 2- Airend – efficient and effective to the highest standards
- 3- Electric motor – economical and robust
- 4- Cooler unit – large surface area, highest performance, and effectiveness for quieter running
- 5- Controller – intelligent, fast response with full digital monitoring (two variants possible)
- 6- Control cabinet – optionally with integrated, energy-saving frequency converter
- 7- Separation system – guarantee's 100% compressed air quality
- 8- Oil circuit – works efficiently with long maintenance intervals

BSD Advantages

- 2-year fully functional guarantee
- Direct drive one-to-one
- Screw compressor unit durability up to the first reworking of bearings ranges to 40.000 bis 50.000 h.
- High quality of compressed air – only 5ppm of oil and 10°C above ambient temperature at the compressor outlet
- The Sound absorbing case makes it possible to place the compressor in the production hall
- Energy-saving properties result from a high energy efficiency
- Low operating costs are achieved thanks to competitive prices of materials and technical supports
- Comprehensive application – from mechanical engineering through food and drink industries up to Pharmaceutical industry

Easy-to-operate control PLC



Type	Motor Power KW	Free air delivered m ³ min at (bar)			Dimensions (mm) W x D x H	Weight Kg	Noise level dB
		7.5	10	13			
BSD 30	30	5.19	4.35	3.96	1100 x 1270 x 1570	780	69
BSD 37	37	6.28	5.33	4.7	1100 x 1270 x 1570	810	69
BSD 45	45	7.5	6.76	5.69	1450 x 1160 x 1570	1100	69
BSD 55	55	9.6	8.23	7.1	2000 x 1100 x 1580	1450	69
BSD 75	75	12.85	11.33	9.3	2800 x 1415 x 1720	1800	71
BSD 90	90	15.93	13.7	11.78	2800 x 1415 x 1720	1900	71
BSD 110	110	18.9	16.4	13.6	2800 x 1415 x 1720	3100	73
BSD 132	132	23.23	20.5	16.5	3300 x 1600 x 1800	3800	74
BSD 160	160	28.95	24.73	22.66	3660 x 1850 x 1860	4500	75
BSD 200	200	34.7	31.1	26.2	4000 x 2100 x 2200	4800	76
BSD 250	250	43.4	38.2	35.7	4000 x 2100 x 2200	5700	77

Oil-injected Screw Compressor

KOMPBERG BSDF

BERG compressors in the BSDF range, from 22 to 200 kW, are based on BERG's standard BSD series.

Frequency Control series compressors from BERG are exceptionally efficient variable speed screw compressors.

The large, slow-speed BERG airends with energy-saving CMC Controller provide outstanding performance throughout the entire control range.

Why Frequency Control ?

- Energy saving up to 37%
- Low fatigue
- Pressure optimization
- Reduction of discharge losses
- Lower power consumption leads to reduced CO₂

Standard Compressor:

The energy costs after ten years amount to 87% of the total costs incurred by a conventional compressor.

Compressor with VSD:

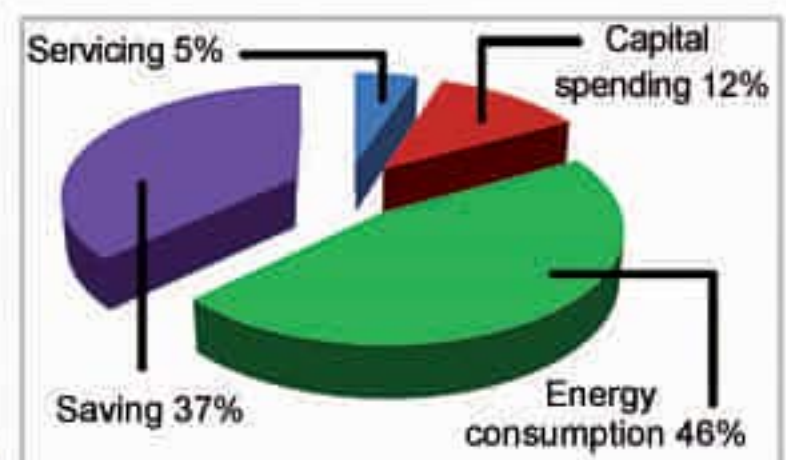
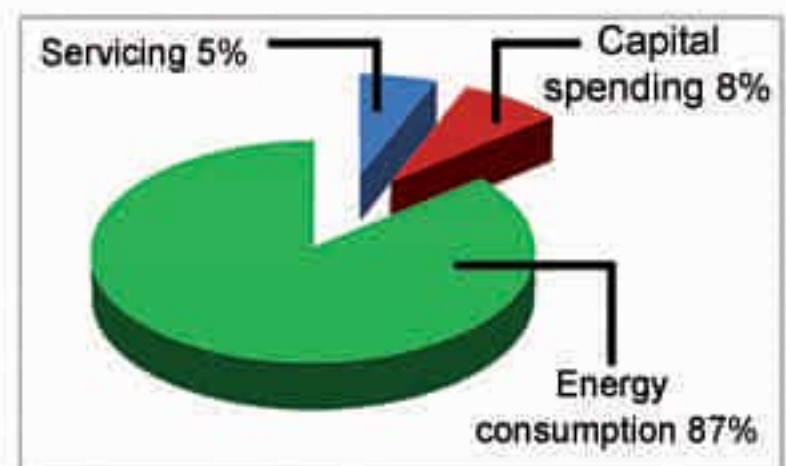
It is possible to save up to 37% on energy costs by using KOMPBERG BSDF, Which is developed by BERG.

Ultimate Efficiency with Our BSDF

Ultimate Efficiency with our BSDF significantly increases reliability and service life, Direct drive reduces the number of components needed in comparison with

All BSDF Compressors model is capable of 100 per cent duty cycles without any additional maintenance required.

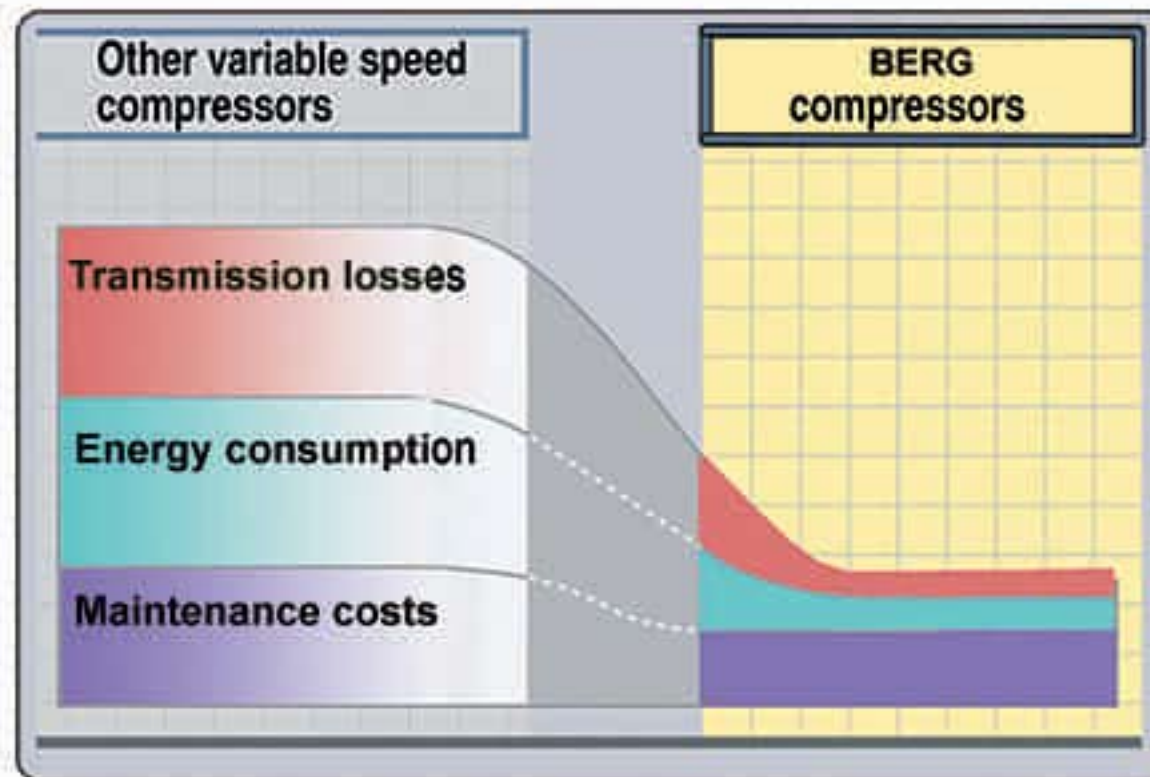
These screw-type compressors have High economic efficiency, long service life, simple and cost-effective maintenance.



gear drive and eliminates the associated transmission losses. Sound levels are also considerably lower.

BSDF Advantages

- Compact Airends eliminating pipework and links with known sources of problems.
- Efficient noise-insulated canopy and multiple anti-vibration mountings for minimization of noise and vibration levels.
- Door panels are easily removed allowing ease of access to the individual components for servicing.
- Use of standard components and maintaining high-quality standards and offering flexibility in the event of faults.



Type	Motor Power	Free air delivered m ³ min at (bar)			Dimensions (mm)	Weight	Noise level
	KW	7.5	10	13	W x D x H	Kg	dB
BSDF 22	22	1.15 – 3.56	1.00 – 3.13	0.87 – 2.68	1100 x 750 x 1570	535	66
BSDF 30	30	1.68 – 5.19	1.41 – 4.35	1.28 – 3.96	1100 x 1270 x 1570	880	69
BSDF 37	37	2.03 – 6.28	1.72 – 5.33	1.52 – 4.70	1100 x 1270 x 1570	910	69
BSDF 45	45	2.43 – 7.50	2.19 – 4.76	1.84 – 5.69	1450 x 1160 x 1570	1420	69
BSDF 55	55	3.10 – 9.6	2.66 – 8.23	2.30 – 7.10	2000 x 1100 x 1580	1530	69
BSDF 75	75	4.15 – 12.85	3.66 – 11.33	3.01 – 9.30	2800 x 1415 x 1720	1950	71
BSDF 90	90	5.15 – 15.93	4.43 – 13.70	3.61 – 11.78	2800 x 1415 x 1720	2100	71
BSDF 110	110	6.11 – 18.90	5.30 – 16.40	4.40 – 13.60	2800 x 1415 x 1720	3300	73
BSDF 132	132	7.51 – 23.23	6.63 – 20.50	5.34 – 16.50	3300 x 1600 x 1800	4030	74
BSDF 160	160	9.36 – 28.95	8.02 – 24.73	7.32 – 22.66	3660 x 1850 x 1860	4750	75
BSDF 200	200	11.23 – 34.7	10.06 – 31.10	8.47 – 26.20	4000 x 2100 x 2200	5750	76
BSDF 250	250	12.00 – 2400	1080 – 2160	900 – 1800	4000 x 2100 x 2200	5950	85

We use the reliable supplier for inverters:

ABB drives are built to truly understand and refine your business and cover every possible application. ABB's signature motor control technology provides precise speed and torque control for all applications and virtually any type of AC motor.

The drive provides features such as an energy optimizer and energy efficiency information that help you monitor and save the energy used in the processes.

SIEMENS inverters have been amazingly reliable workhorses for over 25 years and no competitor drive can boast a track record like that.

The Siemens inverters are microprocessor-controlled and use state-of-the-art Insulated Gate Bipolar Transistor (IGBT) technology.

This makes them reliable and versatile.

Oil-injected PM Screw Compressor

KOMPBERG BSDF - PM

High-Efficiency Airend

The asymmetrical rotor profile allows for a broader sealing band between rotors compared to the conventional narrow-line style seal in most other Airends.

This increases Airend efficiency by 5% - 10%.

The use of large diameter rotors allows for higher efficiencies even at low rotational speeds providing tangible benefits such as reduced noise and extended longevity.

Oversized dual, back to back taper roller bearings effectively retain the rotor position during all load, unload and starting conditions.

Specially Designed PM motor

The PM motor efficiency is even higher than IE3 premium efficiency motors. The motor uses high-performance magnetic materials giving many advantages such as bearing free operation, grease-free maintenance, direct 1:1 coupling without transmission losses, low noise and low vibration leading to a compact footprint. The motor has a visible cover at the back allowing you to easily view motor rotation.

Easy to maintain

A simple flip-top design means that all components are easily accessible for maintenance.

The compressor is also available with optional keys making the whole design convenient to use.



Low energy package power

Featuring the latest oil cooled IP65 permanent motor with increased efficiency over an IE3 motor.

The motor has a high operating temperature of 180 degrees to ensure any motor demagnetization does not occur.

The PM machine has a wide operating band from 25% to 100% speed, making it one of the most efficient machines on the market.

BSDF-PM Advantages

1. Latest Technology of Oil Cooling PM Motor
2. Wide VSD range, No startup time limitation
3. Compact Structure
4. Reliability, Easy and less maintenance
5. Low energy bill, Save up to more than 40% energy
6. Intelligent Touch Screen control panel
7. Very low Noise Level

Type	Motor Power KW	Free air delivered at (bar)		Dimensions (mm) W x D x H	Weight Kg	Connection Size	Noise Level dB
		8	10				
BSDF7.5PM	7.5	0.28 – 1.1	0.24 – 0.95	1197 X 500 X 1125	280	G 1/2	62
BSDF11PM	11	0.42 – 1.7	0.35 – 1.5	1197 X 605 X 1220	320	G 3/4	62
BSDF15PM	15	0.58 – 2.3	0.54 – 2.0	1197 X 605 X 1220	340	G 3/4	62
BSDF22PM	22	0.92 – 3.6	0.80 – 3.2	1200 X 800 X 1100	450	G 1	65

Oil Free Screw Compressor 37-160 KW, Air-Cooled

KOMPBERG ZX

BERG is expert for designing and manufacturing the most reliable oil-free screw compressors. The ZX series is the exquisite rotary screw compressors to come out of this strong tradition, with Two Stage and AirCooled system. The ZX offers a robust design and low operating cost to industries where high-quality oil-free air is a key solution.

BERG Kompressoren has achieved a new milestone: Setting the standard for air purity as a German enterprise who to be certified ISO 8573-1 CLASS 0.

Each machine is tested to ensure it meets specifications, complete security ,and no surprises. The ZX oil-free compressors are truly easy to operate ,and no any inconvenience for maintenance.

100% OIL-FREE AIR

Our oil-free compressors deliver oil-free air. Whether your activities are in pharmaceutical production, food processing, critical electronics or a similarly exacting industry, it is essential to eliminate risk. That's why you need a BERG risk-free solution: oil-free screw compressors especially for applications demanding the highest levels of purity. Zero oil, Zero risks of contamination. Zero risk of damaged or unsafe products, Zero risks of losses from operational downtime.



ZX Advantages

- Robust and unique design
- Low-noise and low-vibration design
- Easy installation Safe and reliable
- Advanced control and monitoring
- High quality inlet/blowdown valve
- Electronic drains
- Low maintenance cost
- Compression Elements
- Low transmission losses
- easy to maintain air filter
- minimum intake losses
- Stain Steel components and piping



ZX Technology

World class oil-free compression element

- 100 % oil-free rotary screw compression
- High quality compressed air
- Low speed to capacity ratio
- High overall efficiency with superior rotor coating and element cooling jackets
- No oil disposal problems downstream as air is completely oil-free
- Two compression stage with Air cooled system



Type	Motor Power KW	free air delivered m3 min at (bar)		Dimensions (mm) W x D x H	Mass Kg	Noise level dB
		8	10			
ZX 45	45	6.51	6.24	1392 x 931 x 1574	810	75
ZX 55	55	7.91	6.61	2500 x 1400 x 2000	3400	85
ZX 75	75	12	9.78	2800 x 1600 x 2000	3700	85
ZX 90	90	12.81	12.81	2800 x 2200 x 2000	4000	85
ZX 110	110	18	15.71	3300 x 2200 x 2000	4300	85
ZX 132	132	21.21	19.05	4000 x 2200 x 2200	4700	85
ZX 160	160	25.7	22.5	4000 x 2200 x 2200	4900	85

Water-injected Oil Free Screw Compressor 50–120 kW, Water-Cooled

KOMPBERG ZWF

ZWF oil-free, water-injected screw compressors are a perfect fit to all applications that require clean compressed air.

There is absolutely no risk of oil contamination and resulting production downtime – 100% oil-free compressed air is one of the competitive advantages of these screw compressors.

BERG water-injected screw compressors of the ZWF ranges, available from 50 to 120 kW, have been developed to ensure economic production of oil-free compressed air.

A special feature of these compressors protected by utility patent is reflected by the fact that compressor oil usually applied for cooling, sealing and lubrication has been completely banished from the process of compression. The oil has been replaced by the most natural of all raw materials: water. Being an ideal heat carrier, water takes away the heat of the compression process and thus ensures low temperatures in the system. The advantage of low temperatures is a nearly isothermal compression which is extraordinarily cost-efficient at high free air delivery.

Energy savings: Compressors with variable speed control.

The ZWF series is characterized by quality and efficiency.

BERG ZWF screw compressors with variable speed control are designed for tough industrial applications. They come with the intelligent control and monitoring system.

Variable speed control

Often strong fluctuations of air demand cannot be avoided. In such cases BERG screw compressors with variable speed control guarantee a cost-efficient, steady flow of compressed air according to current demand.



Water Treatment System!

Full water treatment has been integrated into the compressor system by means of a mixed-bed ion exchanger and a water filter. This makes sure that the circulation water is always of high quality with consistent lubrication and cooling properties. There are no calcium deposits, since all free ions are bound. Continuous monitoring of water quality in water injected machines is crucial and therefore a standard procedure for a ZWF range compressor.

The compressor performance matches the actual need for compressed air thanks to variable speed control. This guarantees economic operation. The frequency converter is firmly mounted inside the switch cabinet.

Optimum use of energy: BERG screw compressors with variable speed control

- use of an efficient control system for compressors
- use of heat recovery systems
- use of advanced compressed air piping systems without leakage
- regular service by factory-trained service technicians

The design of ZWF compressors guarantees easy access to all maintenance relevant components.

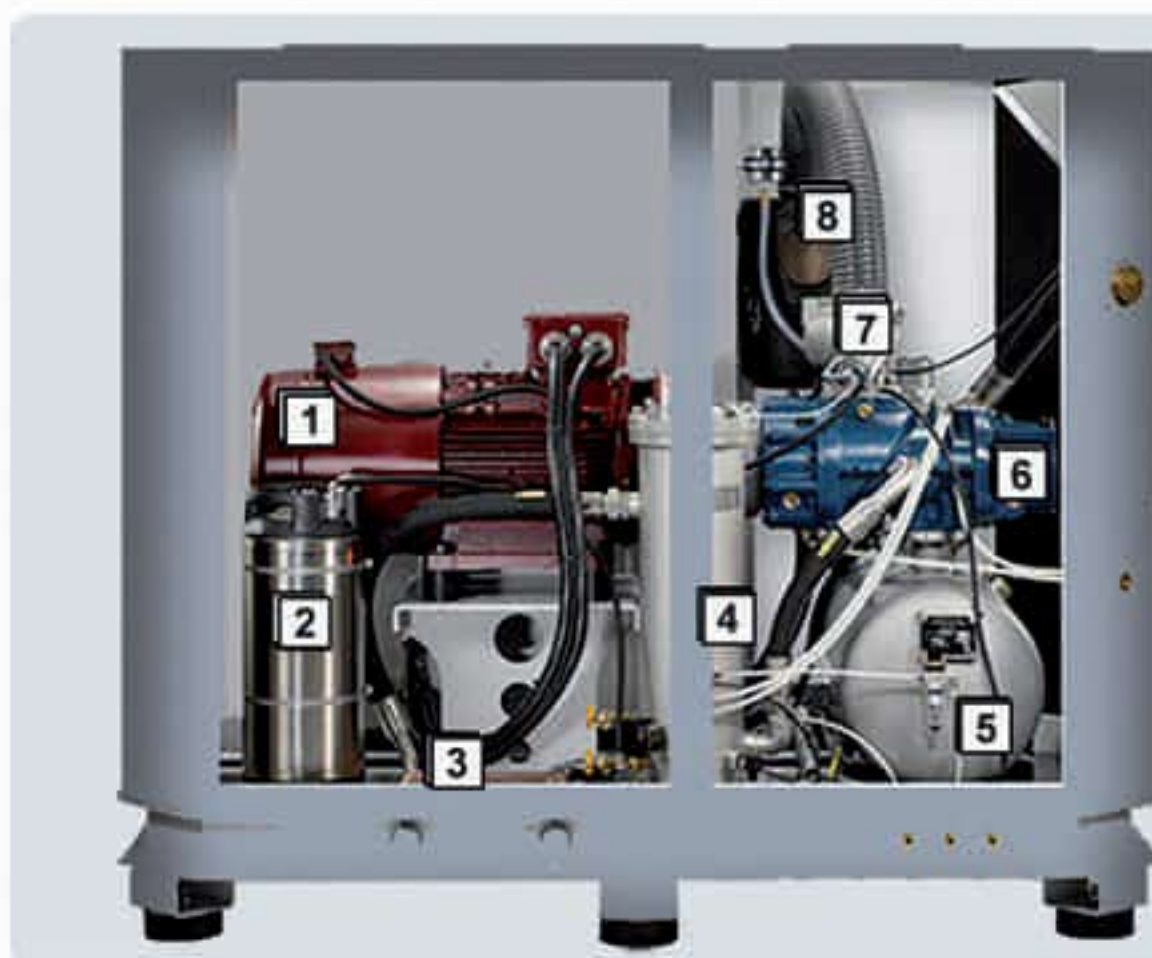
The side covers are detachable to provide excellent access to all maintenance points. Furthermore, the cost of maintenance is reduced by the low number of movable parts.

Many food industry and pharmaceutical client come in contact with compressed air and will therefore, be tested for hydrocarbons by quality control. Oil-free BERG compressors eliminate the danger of contamination. Risk minimization and operational safety are essential, economic advantages of the ZWF range.

Easy to service

- short service times, long service intervals
- low maintenance cost
- excellent accessibility
- easily detachable covers

- 1- High-efficiency IE3/IE4 motor
- 2- Mixed-bed ion exchanger
- 3- Heat exchanger
- 4- Water filter
- 5- Water separator
- 6- Air end
- 7- Intake control
- 8- Air filter



Type	Motor Power KW	free air delivered at (bar)			Dimensions (mm) W x D x H	Mass Kg	Secondary cooler
		6	8	10			
ZWF 50 D	50	1.55 – 10.30	1.55 – 9.60	1.55 – 8.00	2111 x 1329 x 1754	1650	WKH 50
ZWF 68 D	68	1.55 – 11.25	1.55 – 11.20	1.55 – 10.25	2111 x 1329 x 1754	1650	2*WKH 40
ZWF 85 D	85	1.55 – 12.40	1.55 – 12.36	1.55 – 12.17	2111 x 1329 x 1754	1750	2*WKH 50
ZWF 90 D	90	3.41 – 16.60	3.41 – 15.80	3.41 – 14.30	2561 x 1632 x 1853	2280	2*WKH 50
ZWF 120 D	120	3.41 – 20.60	3.41 – 20.30	3.41 – 17.65	2561 x 1632 x 1853	2390	3*WKH 40

STATIONARY SCREW COMPRESSORS

Common parameters of the serie:

- energy saving – no idle run
- high efficiency
- no gear box or belt transmission
- energy optimized cooling system
- reliability – reduction number of components and useage of integrated parts
- very low vibrations
- low speed machine – life time of up to 80 000 working hours
- low noise level

We are using a large low speed air end for relative small compressors. The electric motor is directly coupled to the main air end rotor, which essentially reduces the maintenance cost, in contrast with the belt driven compressor or a compressor with gear box.

Open machines without canopy

The B100 screw block is of robust construction and it is designed with a power reserve. Thanks to this, the machines work at very low speeds and are therefore very quiet. These machines can be operated without canopy.

The open version offers excellent service access.

* machines E.50 and E.65 can alternatively be offered in the canopy

Closed machines with canopy

Machines from 11 kW are delivered with a steel canopy. It acts as sound muffler and also directs the flow of cooling air that removes heat from the compressor. The compressor is thus protected against overheating. The canopy can be easily connected to the air ducting and allows unrestricted service access..



Compressor output is controlled either as for piston compressors by an on/off switch, depending on the pressure in the air chamber or by classic suction regulator with a new control system depending on the pressure level, or possibly by advanced continuous regulation of operation, which optimises the machine's performance parameters in real time by smoothly changing revolutions depending on the volume of discharged compressed air

Compressor station

For applications where space is a problem, we offer an „all in one“ solution. These are compressors with integrated refrigerant dryer. These machines allow easy installation and fully automatic delivery of dried compressed air.



Air Booster Compressor

KOMPBERG BKB Compressor Compressor controller:

Compressor unit and accessories

The compressor unit is a plug & play solution that requires little installation effort and can be put quickly and easily into operation.

A broad range of optional accessories is available for both the compressor and the compressor unit.

The scope of delivery differs depending on the type of the compressor and the compressor unit.

In most cases, the compressor unit consists of the compressor itself supplemented by the electric control, pressure sensors for inlet and outlet pressure, output temperature monitoring, set connection hoses and bulkhead fittings. They are installed completely assembled and electrically wired on a compressor base frame.

The Controller fulfills all requirements for electric controls regarding intuitive operating concepts and additional networking possibilities.

The focus mainly lies on monitoring and safety functions, on an automated operation of the unit and on the optimization of service as well as maintenance processes.

Fields of application are e.g.

- Production of PET bottles
- Starting air used for engines and turbines

Our support and service package is rounded off by our offer of acceptance tests professional installations with subsequent commissioning as well as an extensive range of service.



Type	Inlet Pressure		Volume flow rate M3/h	Max. operating pressure		Electric motor kW	Revolutions rpm	Dimensions (mm) W x D x H
	bar	PSI		bar	PSI			
BKB22	7.5	109	384	20	290	22	1500	1520 x 860 x 980

Portable Diesel air compressors

KOMPBERG BPD, Portable Diesel air compressors

Serie BPD Perkins 2–25 m³/min

The range is designed from 2 m³/min up to 25 m³/min and is diesel driven. The design reflects the one company's 50 years experiences in portable compressors which lead to robust and compact machines ready to work in very difficult conditions on construction site, extreme temperatures, dusty ambient or sometimes not very professional maintenance.

Common parameters of the serie:

-Engines - The engine as one of the key components has a direct influence on the reliability of the machine. We are using engines with power reserve to offer higher reliability and longer life time. The engine RPM in our portable range is optimally set up based on performance curve. It means very low fuel consumption.

-Control system - Two stages proportional control system is the next benefit which markedly reduces fuel consumption. The control system perfectly controls the current air consumption to optimize energy for compressed air needed and it leads to extra fuel saving for the customer.

-Air ends - The proven air ends in our portable range provide high reliability during the life time of the machine. The latest generation of screw profile has excellent characteristics in efficiency and noise level point of view.

-Safety system - The safety system monitors coolant temperature, engine oil pressure and compressor oil temperature. If any of the mentioned parameters are exceeded, the machine will shut down or change to stand-by mode automatically.



-Undercarriages - We use galvanized, fully certified undercarriages in accordance with EU standards. Based on customer demands we could offer several options like: fix height tow bar, braked or un-braked or variable height tow bar braked or un-braked.

-Canopies - The canopy reduces the noise level in accordance with EU environmental rules and restrictions. We pay high attention to protect our machine against corrosion. The top and bottom parts of the canopy of our portable range are iron phosphate and powder coated which is approximate to automotive standard.

-Water in compressed air - Our range is ready to offer you dry air. We can deliver the machine with high efficiency after cooler and water traps which are inbuilt under the top part of the canopy. It really delivers you dry air for application like sand or ice blasting.



Designed for extreme conditions



- frosts in Siberian tundra
- startup even during extreme low temperatures (-42°C) due to newly developed technologies
- corrosive environment of seaside areas of South America
- extreme temperatures of Arabian peninsula
- filters and separators which are designed specially for dusty environments

Engines

- diesel engines from renowned leading brands
- established global service network
- exceptional lifetime thanks to correct match of engine and air-end

Control system

- control system co-ordinates engine rpm according to discharge air
- maximum power optimization, low fuel consumption

Optional accessories

- universal appeal and requirement of our products
- wide range of optional and additional accessories

Optional Accessories

Our compressors can have various versions of undercarriages: fixed unbraked, adjustable unbraked, fixed braked, adjustable braked, skid mounted.



Modell		BPD10 CE	BPD15 CE	BPD20 CE	BPD28 CE	BPDB35 CE	BPD65 CE	BPD95 CE	BPD190 CE
Überdruck	bar	6/10/14	7	10-Jul	7/10/12/14	7/10/12/14	7/10/12	7/10/12	8,6/10/ 12/14
Kostenlose Luftlieferung	m ³ /min	1,4/1,1/0,7	2	2,9/2,5	4,4/3,5/2, 9/2,7	5/4/3, 2/3	7,0/6, 3/5,8	11,0/9, 8/8,8	24,8/21,3/ 19,2/17,2
Motor machen		Vanguard	Perkins	Perkins	Perkins	Perkins	Perkins	Perkins	Perkins
Motormodell		B&S 23 HP	403D-07	403D-11	404D-22	404D-22	1104A-44T	1104A-44T	1106D- E70TA
Gewicht	kg	135	500	690	1000	1000	1670	1800	3490
Motormennleistung	kW	16,9	15,3	21,3	35,7	35,7	82	82	186



BERG Kompressoren GmbH
Compressed Air Technology | Air Separation



BERG Kompressoren GmbH
40221 Düsseldorf, Germany
Telefon: +49 211 882 31627
Fax: +49 211 882 31626
info@berg-kompressoren.de
www.berg-kompressoren.de

