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1997

# DIRECT DRIVE SCREW COMPRESSOR

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FVK 132 DVS

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FVK D SERIES SCREW COMPRESSORFVK DVS SERIES SCREW COMPRESSOR

FVK 37) D

## **FVK D Series**

Filo direct drive compressors use screws without gearboxes. They are specially produced considering the air needs of the users.

Direct drive systems are screw compressor systems produced by connecting the motor directly to the screw unit. Direct drive screw compressors provide significant energy savings with their superior performance. The fact that the movement and energy transfer is made only with the help of a coupling compared to the systems made with a belt and pulley connection minimizes the energy losses that will occur due to friction.

Our compressors use gearless screws with high efficiency. These screws have a low speed. This enables maximum air flow rate and maximum efficiency with low speed.

Motor-screw drive system is made with couplings with elastic parts. This type of coupling reduces the noise level as well as saves time by facilitating assembly.

The equipment used in the compressor (such as suction valve, separator and thermostatic valve or valve) are designed by Filo R&D department. All parts have passed all tests and delivered to the assembly department.

Thermostatic valves produced by Filo prevent water condensation and extend oil life by keeping the oil going to the screw block at a certain temperature. It works smoothly in all weather conditions.

The compressor cabin, chassis and equipment used in the compressor are manufactured with the principle that they can operate for years without any problems, taking into account that they are resistant to rusting and corrosion.

It has a cabin design that minimizes noise and vibration and saves maintenance time.

The oil and air cooling system has a large internal volume and provides low pressure and low temperature. Thus, it can operate efficiently in all conditions.

The specially designed oil tank and separator filter provide optimum oil separation. Cleaner compressed air is obtained.



Air capacity ISO 1217 (Annex C-2009): 8 bar 1650-38500 lt/min

**Area of use** Industry,furniture,textile,health,food, construction

**Connection** Coupling

**Operating pressure** 5-8 Bar

**Cooling mode** Air

**Power** 11-250 kw

## **Technical Specifications**

Model	Motor Power	Pressure		Capacity		Air Connection	Dimensions			Weight	Sound Level
FVK D	Kw/Hp	Bar	Psi	m³/Min	Cfm	Inch	Width	Length	Height	Kg	dB(A)
FVK 11 D	11/15	8	116	1,65	57,7	3/4"	1100	620	920	256	70
FVK 15 D	15/20	8	116	0,22	7,7	3/4″	1200	780	1060	365	72
FVK 18,5 D	18,5/25	8	116	1,732	60,6	1″	1450	780	1060	440	73
FVK 22 D	22/30	8	116	3,6	126	1″	1450	780	1600	452	73
FVK 30 D	30/40	8	116	4,5	157,5	11/4″	1800	1000	1150	765	75
FVK 37 D	37/50	8	116	6,2	217	11/4″	1800	1000	1150	790	75
FVK 45 D	45/60	8	116	7,1	248,5	11/2″	2120	1250	1500	1250	76
FVK 55 D	55/75	8	116	10	350	11/2″	2120	1250	1500	1370	76
FVK 75 D	75/100	8	116	12,5	437,5	2″	2220	1350	1600	1850	78
FVK 90 D	90/125	8	116	14,8	518	2″	2220	1350	1670	1860	78
FVK 110 D	110/150	8	116	20	700	2″	2600	1500	1985	2450	79
FVK 132 D	132/180	8	116	22	770	2″	2600	1500	1985	2730	79
FVK 160 D	160/220	8	116	27	945	21/2″	3000	1700	2100	3500	79
FVK 200 D	200/270	8	116	34	1190	21/2″	3000	1700	2100	3750	80
FVK 250 D	250/340	8	116	38,5	1347,5	3″	3000	1700	2100	4000	80





## Filo Fvk D Series Compressors



- Maximum performance with low speed screws,
- Minimum noise level, facilitated installation with elastic part coupling connection,
- Star-triangel operation,
- Long working life with own production equipment,
- Minimized noise level with cabin interior design,
- Fast and low maintenance cost by design,
- Self-protection in situations such as high temperature, high pressure,
- High efficiency motor,
- High safety systems against all risks.

## **FVK DVS Series**

The Filo DVS series consists of compressors specially designed to increase screw groups to different speeds using inverters.

Our DVS models are 25-35% more efficient in terms of energy efficiency than other non-inverter compressors. The compressor motor speed adjusts according to the flow rate requested by the company. The sensors inside the compressor, which detect the needs of the business, enable the compressor to operate in variable power ranges with the help of the inverter. Thus, since it does not rotate at full speed continuously, it saves a great deal of energy. In addition, the use of inverters increases the life of the equipment as it provides a soft start and stop in the motor and therefore reduces maintenance costs.

Since the instantaneous air demand is continuously monitored with the help of sensors, air is generated as much as the operating needs and the air pressure in the installation lines remains constant.

If different pressure ranges are required, the desired pressure is obtained by entering the necessary values from the control panel without making any changes in the compressor.

Direct coupled systems are screw compressor systems produced by connecting the motor directly to the screw unit.



## Filo Fvk DVS Series Compressors

- Maximum energy savings with the use of inverters,
- Variable turnover that adjusts itself according to the needs of the business,
- Constant pressure and air flow rate,
- Both inverter and motor protection against variable mains voltages,
- Minimized noise level, ease of installation with a coupling connection with elastic parts,
- Soft start, stop in electric motor,
- High efficiency motor.

## **Technical Specifications**

Model	Motor Power	Pressure		Capacity Min		Capacity Max		Air Connection	Dimensions			Weight	Sound Level
FVK DVS	Kw/Hp	Bar	Psi	m³/Min	Cfm	m³/Min	Cfm	Inch	Width	Length	Height	Kg	dB(A)
	_	8	116	0,85	29,7	1,7	59,5						
FVK 11 DVS	11/15	10	145	0,75	26,2	1,5	52,5	3/4"	620	1100	920	256	70
		13 Q	189	0,625	21,8	1,25	43,/						
FVK 15 DVS	15/20	10	145	1,2	36.7	2,4	73.5	3//"	750	1250	1130	205	72
		13	189	0,95	33,2	1,9	66,5	5/4	/ 50	1230	1150	275	12
		8	116	, 1,7	, 59,5	3,4	119						
FVK 18,5 DVS	18,5/25	10	145	1,525	53,3	3,05	106,7	1"	780	1450	1060	440	73
		13	189	1,25	43,7	2,5	87,5						
FVK 22 DVS	22/30	8	116	1,9	66,5	3,8	133	1"	780	1450	1090	452	73
		10	145	1,725	60,3 55 1	3,45	120,7						
		8	116	2.6	91	5.2	182						
FVK 30 DVS	30/40	10	145	2,25	78,7	4,5	157,5	11/4"	1000	1800	1150	765	75
		13	189	1,975	69,1	3,95	138,2						
	37/50	8	116	3,3	115,5	6,6	231	11/4"	1000	1800	1150	790	75
FVK 37 DVS		10	145	2,85	99,7	5,7	199,5						
		13 8	189	2,33 3.7	89,2 120 5	3,1 7 /	1/8,5						
FVK 45 DVS	45/60	10	145	3,325	116,3	6,65	232,7	11/2"	1200	2000	1550	1250	76
1 11 43 0 13		13	189	2,9	101,5	5,8	203			2000			
	55/75	8	116	4,8	168	9,6	336	11/2"	1200	2000	1550	1370	76
FVK 55 DVS		10	145	4,2	147	8,4	294						
		13	189	3,7	129,5	7,4	259						
FVK 75 DVS	75/100	8	116	6,3	220,5	12,6	441	0.1	1250	0000	1515	1050	70
		10	145	5,4 175	166 2	9.5	370	Ζ"	1330	2200	1515	1850	/8
	90/125	8	116	8,5	297,5	17	595	2"	1350	2220	1670	2100	78
FVK 90 DVS		10	145	7,5	262,5	15	525						
		13	189	6,4	224	12,8	448						
		8	116	10,795	377,8	21,59	755,6						
FVK 110 DVS	110/150	10	145	9,5	332,5	19	665	3"	1500	2600	1985	2850	79
		13	189	8	280	10	560						
FVK 132 DVS	132/180	8	116	11,8	413	23,6	826	3"	1500	2600	1985	3000	79
		10	145	10,75	376,2	21,5	752,5						
		13	189	9,935	347,7	19,87	695,4						
FVK 160 DVS	160/220	8	116	14,5	507,5	29	1015	3"	1700	3000	2100	3500	79
		10	145	12,875	450,6	25,75	901,2						
		13	189	11,25	393,7	22,5	787,5						
FVK 200 DVS	200/270	8	116	18,5	647,5	37	1295		1700	3000	2100	3750	80
		10	145	16,25	568,7	32,5	1137,5	4"					
		13	189	14,25	498,7	28,5	997,5						
		8	116	22,5	787,5	45	1575						
	250/340	10	145	19	66.5	38	1330	⊿"	1700	3000	2100	4000	80
	2007 040	12	180	16.6	501	33.0	1140		17 00	0000	2100	-000	50
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# **FVK DVS Series**



#### **Protection**

Minimizing impacts from external environments by providing more protection thanks to the embedded structure of the control panel.



#### **FVV Valve**

Thanks to the Filo fvv 5-way or valve, which is our own production used on the suction group, the use of solenoid valves is reduced to one, saving material and providing a longer life.



### Latest Technology Control

Precise results are obtained by entering the desired air flow rate and pressure thanks to high technology controllers.

#### **Direct Connection**

It minimizes the losses that may occur in the v-belt by directly connecting the electric motor and screw block with couplings made of filo brand high durable rubber material. High flexibility attenuates vibrations and oscillations and protects the electric motor by breaking off in case of locking of the screw block ensuring quiet operation.



#### Durability

More durable to harsh conditions and years thanks to its robust cabin design.

#### Safety

It makes it safer with multiple safety equipment used inside.

### Low Maintenance Cost

Since filo brand consumables, which are our own production, are used, they are both longer lasting and more affordable.

#### **Filo Suction Group**

Thanks to the operation of the filo suction group, which is our own production, the filo suction group closes at the first start of the compressor without putting an extra load on the electric motor and extends its life by ensuring the comfortable operation of the electric motor and saves electricity by preventing excess use of electricity.



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#### Filo Combined Blocksystem

It contains a thermostatic pressure valve, oil filter wedge, separator wedge and thanks to these valves, space is saved and maximum performance is guaranteed by keeping the oil temperature level at a certain level.



#### **Strong Cooling Capacity**

Thanks to the large radiators used and the aerodynamic internal structure that provides maximum level air flow, the cold air entering from the outside circulates around every part of the compressor and discharged. This ensures maximum cooling and prevents the compressor from overheating.



#### Silence

Quiet operation thanks to low speed and high insulation.



#### Motor

Energy efficiency class IE3,Protection class IP55, Insulation class F.



#### Frequency Controlled Inverter

Thanks to the high technology inverters used, energy saving and maximum efficiency is ensured by controlling the frequency of the electric motor.



Each of our products is designed in accordance with Industry 4.0.

#### Air capacity ISO 1217 (Annex C-2009): 8 bar 1650-45000 lt/min 10 bar 1550-38000 lt/min 13 bar 1250-33200 lt/min

**Area of use** Industry,furniture,textile,health,food, construction

**Connection** Coupling

**Operating pressure** 5-8 Bar

**Cooling mode** Air

**Power** 11-250 kw





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