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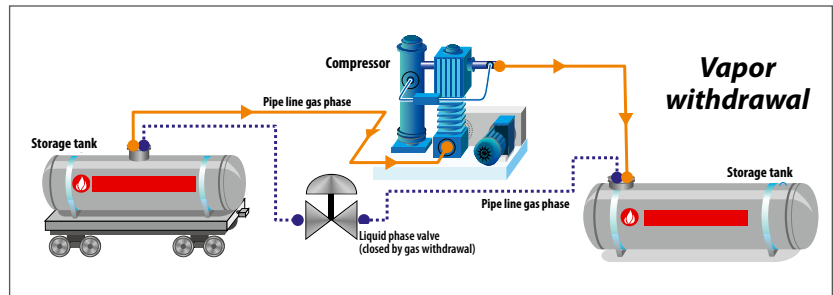
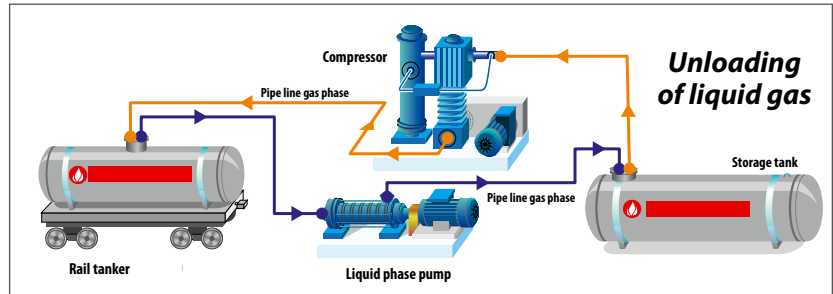
# Compressors

## Dry run piston compressor

- vertical execution
- oil-free dry run piston compressor
- V-belt drive
- air cooler
- suction and pressure gauge



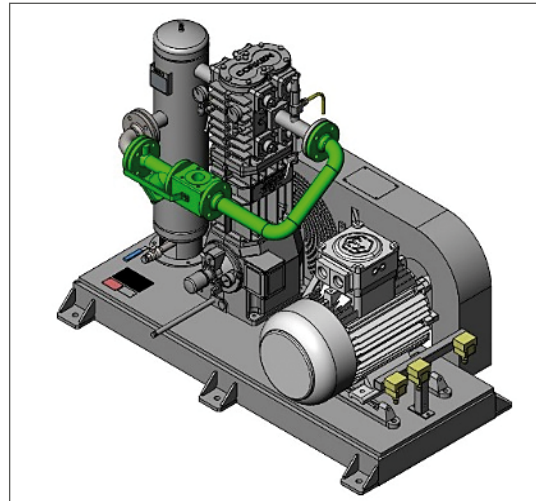
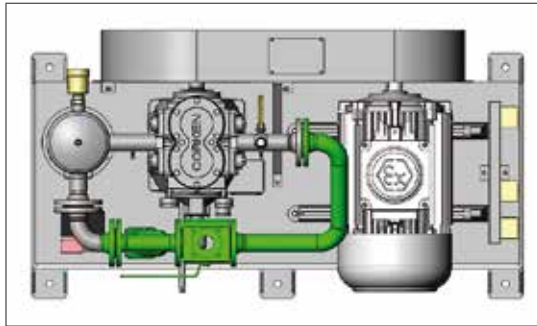
Order No.	Type Corken	Max. capacity (m <sup>3</sup> /h)
21 050	91	13
21 054	291	27
21 055	491	60
21 056	691	102
21 0595	891	200
Order No.	Type Blackmer	Max. capacity (m <sup>3</sup> /h)
21 104	161	26
21 105	361	58
21 106	601	100
21 097	942	200



Single stage compressors (gas compression proportion less than 5:1) are normally used to transfer propane/butane from rail tankers and tank ships.

Two staged compressors are used for a gas compression proportion greater than 5:1.

Compressors with water coolers are used for great differential pressures and high temperatures.



Compressor unit Type FAS

Compressor unit Type FAS		91	291	491	691	891	HG
Nº	Capacity, m <sup>3</sup> /h	14	28	61,2	103,3	200	375
1	Compressor unit consisting of: compressor, base plate, gas trap, electrical motor, V-belt drive, safety relief valve	210141	210930	210952	210640	218201	46300
1.1	Four-way ball valve, strainer incl. Pipe line DN 50 PN 40	210142	210932	210953	210641	218202	14018*
1.2	Buffer tank	–	–	–	–	939854	–
1.3	Min. oil pressure switch – 1 pc. per compressor unit						184621 - EU / 18462 - CIS
1.4	Max. pressure switch, (pressure side) – 1 pc. per compressor unit						184563 - EU / 18456 - CIS
1.5	Min. pressure switch (suction side) – 1 pc. per compressor unit						184573 - EU / 18457 - CIS
1.6	Level sensor, Type VEGA SWING 61 – 1 Stk. per compressor unit						26130
1.7	Resistance thermometer PT 100 – 1 Stk. per compressor unit						26312
1.8	Welding thermometer well for PT 100 – 1 Stk. per compressor unit						26316
1.9	Bracketry for mounting of pressure switches – 1 Stk. per compressor unit						21195
2	Electrical control box for installation inside the building and outside of protection zone						26932
2.1	Isolating switch amplifier, type of protection – EEx ia II C – 4 pcs.* per compressor unit						26301
2.2	Measuring transmitter PMT 50 Ex for PT 100 – 1 pc. per compressor unit						263140
3	Flexible hose PN 40, stainless steel, L=1000 mm on both sides lapped flanges – 2 pcs. per compressor unit	–	21175	21191	21192	21193	82739

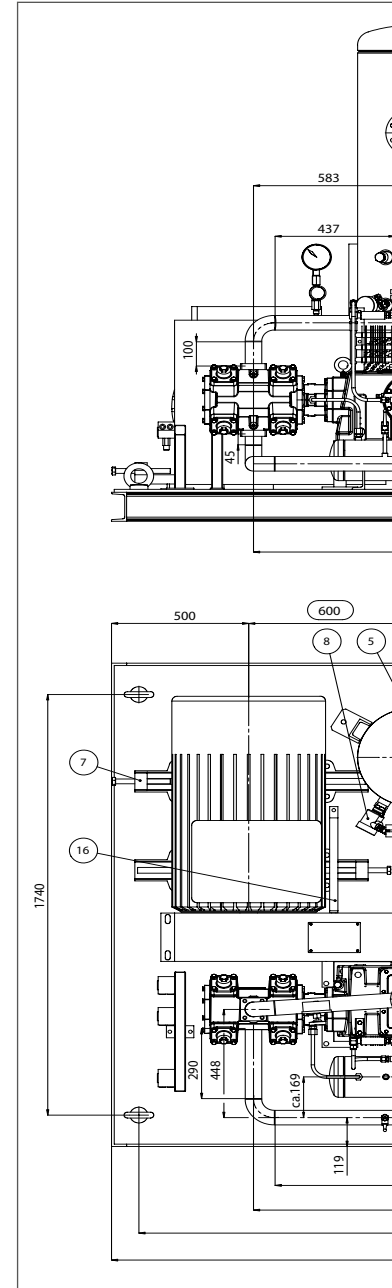
\*Attention! Quantity of item 2.1 is depending on the quantity of items 1.3-1.6. Each device needs 1 pc. of item 2.1.

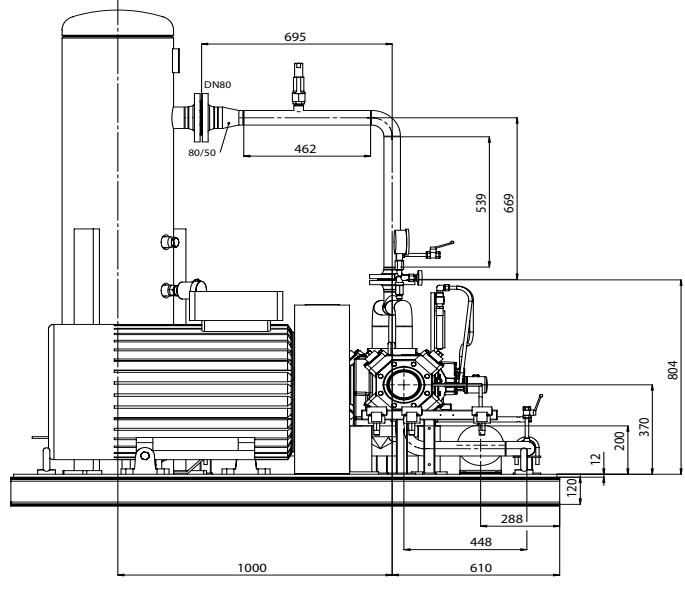
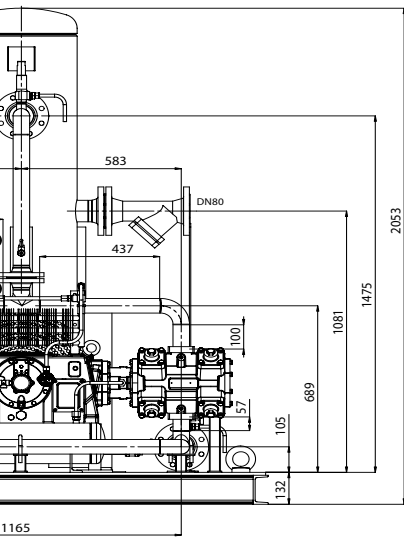
\*\*HG compressors are equipped with one strainer only.



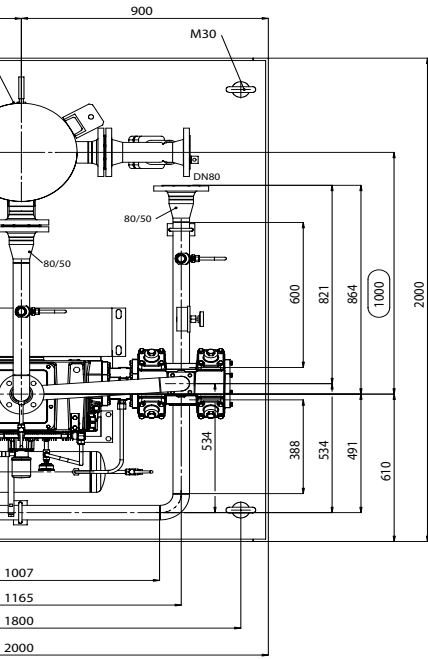
**FAS 46 300 horizontal compressor unit Type FAS-Corken HG 601 BB**

- medium – LPG
- cylinder number/stage number – 2/1
- capacity – up 375 Nm<sup>3</sup>/h
- min. inlet pressure – 0,5 bar
- speed – 1100 U/min
- with pressure monitoring system (gas/oil), liquid gas trap, strainer, four-way ball valve, safety relief valve (adjustable), V-belt drive with protection plate
- 3-phase motor with a capacity of: 58 kW, EEx IICT3, 400/690 V, 50 Hz





Dimensional drawing  
for FAS 46 300  
horizontal compressor  
unit Type FAS-Corken  
601



### Mobile compressor unit

- for use in Ex zone
- dry running piston compressor unit with three phase motor 400/690 V in EX-execution
- with pressure monitoring and safety fittings
- Ex-control unit for three phase motor with 30 m connection cable
- 2 LPG hoses a' 12 m with shut-off valves
- mounted on a light ground plate, grounded and painted, mounted on a hand cart (up to 60 km/h)

*Additional equipment for liquid phase: high pressure hoses, sight flow indicator, strainer, valves.*

*Can be designed on a base frame for the mounting in a car.*



Compressor Type		161	161	361	361	601
Order No. FAS		21221	21093	21223	21223/21095	21226/21064
Connection	Compressor (NPT IG)	¾"	¾"	1¼"	1¼"	1½"
	Unit (flange DN)	20	25	32	32	40
Cylinder number		2	2	2	2	2
Piston stroke, mm		63	63	76	76	102
Max. capacity, m <sup>3</sup> /h		26	26	58	58	100
Min. inlet pressure, bar		0,21	0,21	0,21	0,21	0,21
Max. outlet pressure, bar		24,1	24,1	20,7	22,4	24,1
Speed, U/min <sup>-1</sup>		790	790	790	790	770
Max. approved consumption of electricity, kW		8,0	8,0	15,0	15,0	30,0
Motor capacity, kW		5,0	5,0	10,0	10,0	17,5
Weight of compressor, kg		104	104	153	153	322
Weight of complete compressor unit, kg		140	265	214	400	630

### Mobile compressor unit

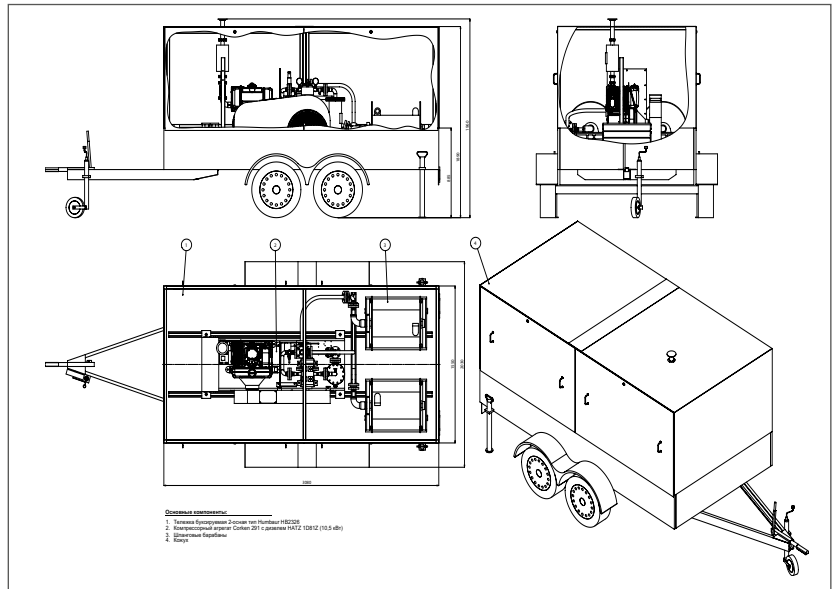
- for use in Ex zone
- dry running piston compressor unit with Diesel motor Hatz 1D81Z for Ex-protection area
- with pressure monitoring and safety fittings
- 2 LPG hoses l=12 m
- mounted on a light base construction, primed and painted, mounted on a trailer (up to 60 km/h)

*Additional equipment for liquid phase: high pressure hoses, sight flow indicator, strainer, valves.*

*Can be designed on a base frame for the mounting in a truck.*



Order No. FAS		933930
<b>Compressor Type</b>		<b>291</b>
Connection	Compressor (NPT IG)	¾"
	Unit (flange DN)	25
Cylinder number		2
Piston stroke, mm		63
Max. capacity, m³/h		26
Min. inlet pressure, bar		0,21
Max. outlet pressure, bar		24,1
Speed, U/min <sup>-1</sup>		790
Max. approved consumption of electricity, kW		8,0
<b>Motor Type</b>		<b>Hatz 1D81Z</b>
Cylinder number and capacity, l		1/0,67
Compression grade		20.5
Max. motor capacity (3000 U/min <sup>-1</sup> ), kW		10,3
Fuel consumption (2000 U/min <sup>-1</sup> ), g/kW·h		240



**Dimensional drawing of mobile compressor unit with diesel motor drive**

**Complete pump-compressor station**

for transferring of propane / butane from tankers, rail tanks and road tankers. "Ready to use" design including all necessary pipe lines, process and safety equipment.

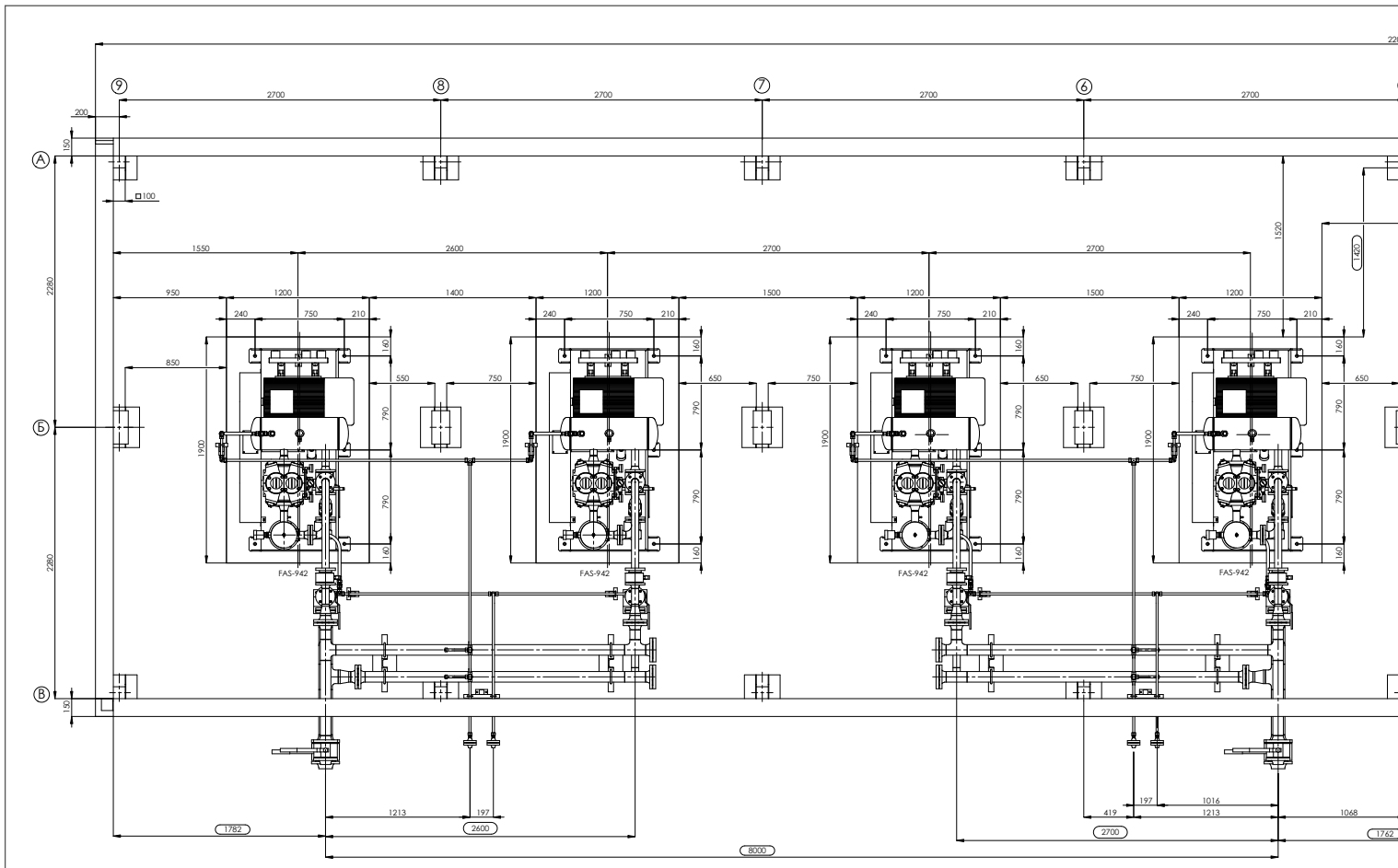
Available with all types and numbers of pumps and compressors.

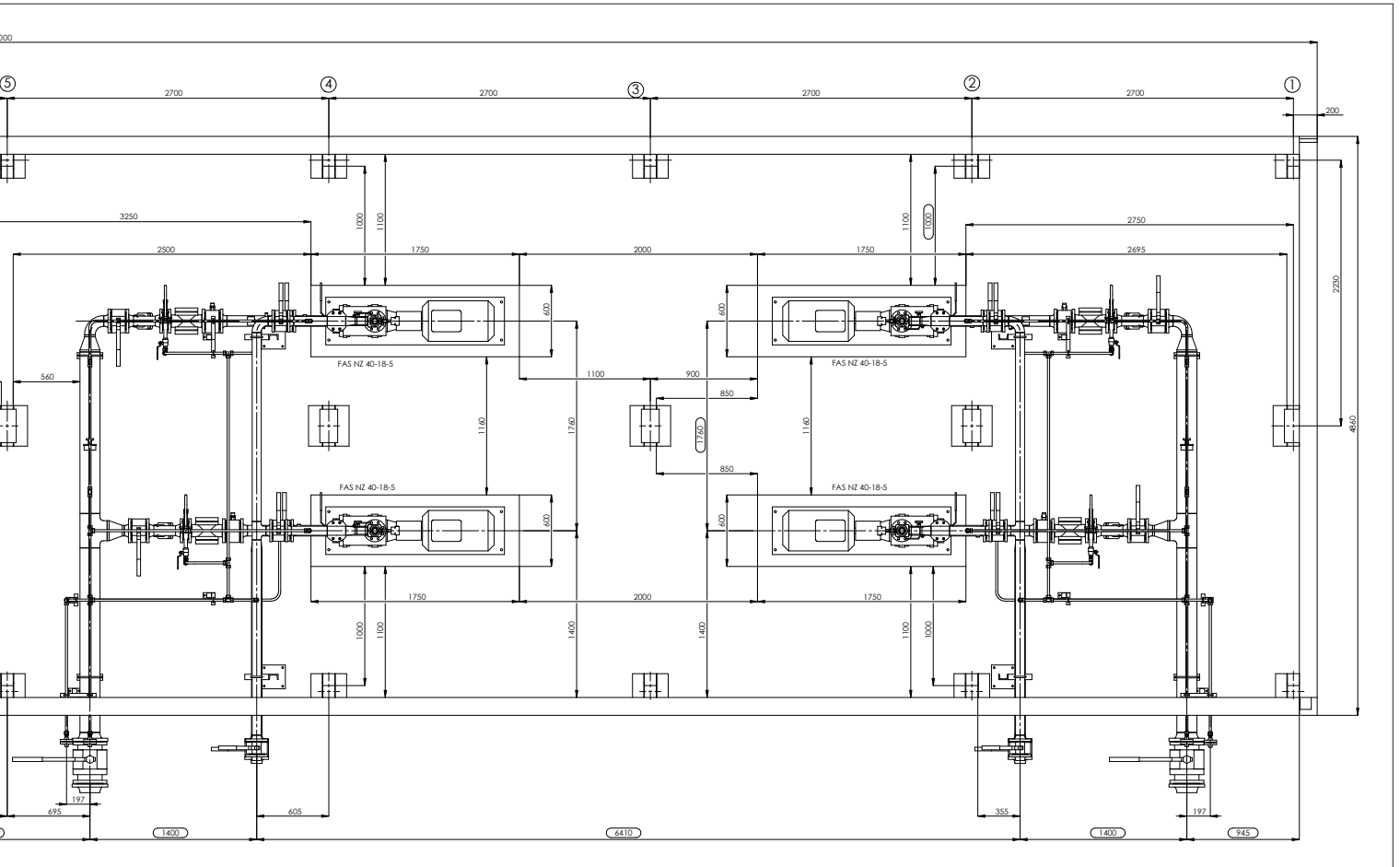
Example versions:

- FAS 93 374 – 3 compressor units 200 m³/h each, 2 pump units 40 m³/h and 18 m³/h
- FAS 93 3740 – 4 compressor units 200 m³/h each, 2 pump units 40 m³/h each
- FAS 93 3748 – 4 compressor units 200 m³/h each, 4 pump units 40 m³/h each (see drawing below)
- FAS 93 3733 – 2 compressor units 100 m³/h each, 3 pump units 18 m³/h each
- FAS 93 3740 – 4 compressor units 100 m³/h each, 4 pump units 40 m³/h each

Other versions are available on request.

Inlet/Outlet		
Pump group	Inlet:	DN 150
	Outlet	DN 80
	Bypass line	DN 65
Compressor group	Inlet:	DN 80
	Outlet	DN 100







# Accessories, additional equipment and safety devices for piston compressors

## Mechanical liquid trap type FAS

- made from steel
- with ball valve 3/8" NPT made from steel for condensate drainage
- available connection for installation of an electrical filling-level sensor



Order No.	Type compressor	Connection	Execution	Content, l	Weight, kg
21 130	161/162	DN 20	TKW	5,8	18,4
21 131	161/162	DN 25	for stationary systems	5,8	18,7
21 132	361/362	DN 32		5,8	19,1
21 133	601/602	DN 40		7,8	21,3
21 134	942	DN 50		30,0	49,4
26 130	Filling-level sensor type VEGASWING, probe – stainless steel L=69 mm, case: synthetic, operating temperature range 40...150°C, operating pressure – up to 64 bar				
26 301	Switch amplifier for stationary systems, 1 channel intrinsically safe circuit (EEx i) IIC with relay outlet, 1 changeover contact, supply voltage: 230 V, 45 ... 65 Hz, NAMUR				
21 137	Shut-off device, pneumatic, PN25 (for trucks), connection 2" NPT AG, control pressure 1,4 – 4,1 bar				

## Mechanic liquid trap Type FAS

- made from steel

Order No.	Type Compressor	Connection	Content, l	Weight, kg
21 171	Blackmer 161/162/361/362	1 1/4"	9,7	14,4
21 170	Corken 290/291/D291/490/491/D491		9,7	14,4
21 172	Blackmer 601/602		13,0	16,3

## Safety relief valve PN 40 for stationary systems

- angled form
- soft seal
- free of non-ferrous metal
- set at 19 bar



Order No.	Inlet, "	Outlet, "	Weight, kg
21 145	G 3/4 AG	G 1/2 IG	2,3

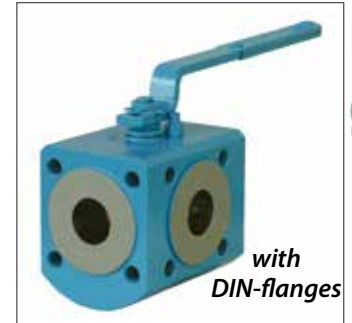
**4-way ball valve PN 40**

- from forged steel
- acc. to AD A4 requirements
- seals from PTFE/Viton

*Executions:*

A – with manual lever

B – with pneumatic actuator without spring reset, operating angle 90°, designed to handle a pilot pressure of 5-8 bar

with  
NPT-threadwith  
DIN-flanges

Order No.	Execution	Weight, kg	Connection	Type Compressor
21 140	A	5,1	¾" NPT	161/162
21 141	A	7,3	1" NPT	161/162
21 142	A	7,3	1¼" NPT	361/362
21 143	A	7,4	1½" NPT	601/602
21 240	B	16,3	¾" NPT	161/162
21 241	B	18,5	1" NPT	161/162
21 242	B	18,5	1¼" NPT	361/362
21 243	B	18,6	1½" NPT	601/602
21 147	A	5,7	DN 20	161/162

Order No.	Execution	Weight, kg	Connection	Type Compressor
21 148	A	7,1	DN 25	161/162
21 149	A	12,5	DN 32	361/362
21 150	A	14,2	DN 40	601/602
21 144	A	16,1	DN 50	942
21 247	B	16,9	DN 20	161/162
21 248	B	18,3	DN 25	161/162
21 249	B	23,7	DN 32	361/362
21 250	B	25,4	DN 40	601/602
21 244	B	27,3	DN 50	942

**Pneumatic Actuator for 4-Way Ball Valve**

- without spring reset
- operating angle 90°
- designed to handle a pilot pressure of 5-8 bar
- complete with mounting bracket and screws



with NPT-thread

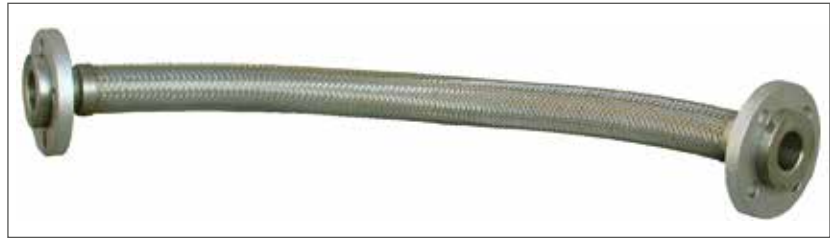


with DIN-flanges

Order No.	Execution
21 180	with NPT female thread (order No. 21140-21143)
21 020	with DIN flanges DN 20-32 (order No. 21147-21149)
21 181	with DIN flanges DN 40-50 (Order No. 21150 and 21144)
21 200	Limit switch in housing, Ex-proof, for position feedbacks, without display
19 748	5/2-way solenoid valve, Ex-proof, with NAMUR connection, for compressed air max. 10 bar, thread connection G¼", operating voltage 230 V-AC, 50 Hz
19 749	5/2-way solenoid valve, Ex-proof, with NAMUR connection, for compressed air max. 10 bar, thread connection G¼", operating voltage 24 V-DC

### Flexible hose PN40

- from stainless steel
- on both sides lapped flanges acc. to DIN2656 from C-steel
- welded execution
- with single stainless steel covering
- for flexible connection of compressors to the pipeline



Order No.	Nominal diameter, DN	Length, mm	Weight, kg
21 175	25	1000	4,0
21 191	32		5,0
21 192	40		6,3
21 193	50		7,6
82 739	80		14,5

### Temperature monitoring at the compressor outlet



Order No.	Description
26 130	Filling-level sensor, process connection – 1" NPT, PN25, output – 2-wire NAMUR-signal, designed for use in Ex zone
26 301	Switch amplifier 1 channel intrinsically safe circuit (EEx i) IIC with relay outlet, 1 changeover contact, supply voltage: 230 V, 45...65 Hz, for installation in an electrical switch box, NAMUR, type of protection (EEx i) II C
26 312	Resistance thermometer PT 100, M18x1,5 AG connection, stainless steel probe Ø 6 mm, length 100 mm, 3-wire-connection, for temperature monitoring of compressed gas
26 3140	Measuring amplifier PMT 50 Ex, intrinsically safe inlet (Ex ia) for resistance thermometer PT 100, with relay outlet for 2 limits 110°C/130°C, with temperature indication, with voltage and current outlet for additional level indicator. Operating voltage: 230 V AC.
26 316	Welding Thermometer well for temperature sensor acc. to DIN 43769. Form D1, material C 22.8

### Pressure monitoring for compressor suction and pressure line

Order No.	Description
<b>High pressure switch (pressure side), setting range 4-25 bar, set at 15 bar</b>	
<b>EU 18 4561</b> <b>non EU 18 456</b>	Pressure switch with Ex I – equipment, for intrinsically safe circuits, break contact with resistance combination for break of circuit and short circuit monitoring, single pole changing over, gilt contacts, differential gap 1,0 bar, only for suitable switch amplifiers (FAS 26301 against more cost).
<b>Low pressure switch (suction side), setting range 0,5-6,0 bar, set at 0,8 bar</b>	
<b>EU 18 4573</b> <b>non EU 18 457</b>	Pressure switch with Ex i – equipment, for intrinsically safe circuits, break contact with resistance combination for break of circuit and short circuit monitoring, single pole changing over, pressure side connection – nipple G½"-AG, gilt contacts, differential gap 0,25 bar, only for suitable switch amplifiers (26301 against more cost).
<b>Pressure switch oil-pressure control, setting range 0,5-6,0 bar, set at 1 bar</b>	
<b>EU 18 4621</b> <b>non EU 18 462</b>	Pressure switch with EX I – equipment, for intrinsically safe circuits, break contact with resistance combination for break of circuit and short circuit monitoring, single pole changing over, gilt contacts, differential gap 0,2 bar, only for suitable switch amplifiers (FAS 26301 against more cost).
<b>Accessories for pressure switches</b>	
<b>21 195</b>	Bracketry for securing pressure switch to steel base plate including pulse conductors and assembly