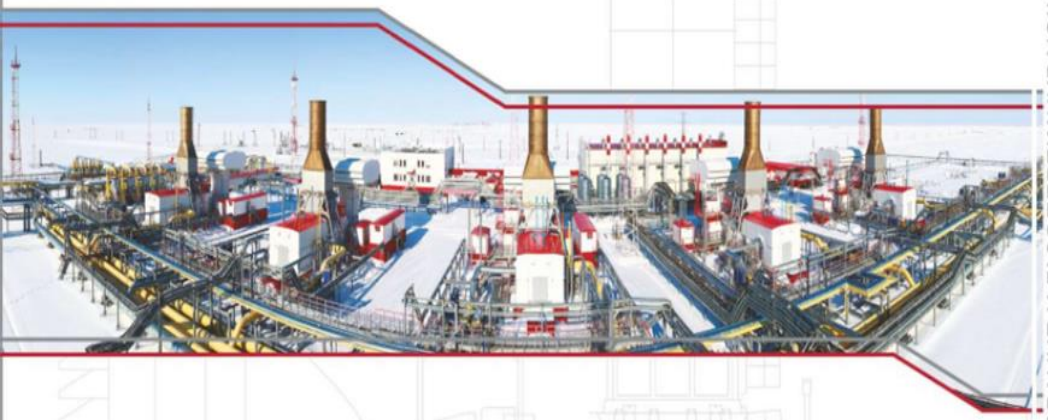

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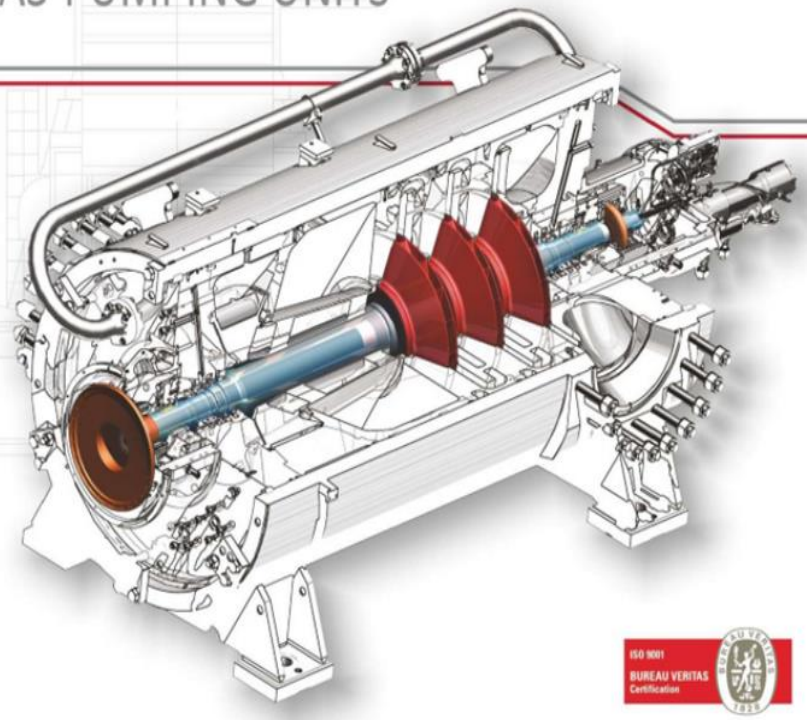
КОМПРЕССОРНОЕ ОБОРУДОВАНИЕ И ГАЗОПЕРЕКАЧИВАЮЩИЕ АГРЕГАТЫ

FRUNZE

"SMNPO - Engineering" JSC

Technical Catalogue

COMPRESSOR EQUIPMENT AND GAS-PUMPING UNITS



ISO 9001
BUREAU VERITAS
Certification

1 About the Company “SMNPO - Engineering” JSC

“SMNPO - Engineering” JSC is now one of the largest machine-building enterprises in Europe manufacturing equipment and developing complex solutions for oil, gas, chemical, petrochemical and power industries.

Company products and services include the following:
- compressor equipment and gas pumping units;
- full range of process equipment for gas compressor stations;
- general-purpose industrial pumps and electric pump units;
- pumps and electric pump units for nuclear power plants;
- heat-exchange and mass-transfer equipment, pressure vessels and tanks;
- process units for cleaning, processing, treatment and primary conditioning of natural gas and crude; complete oil and gas industry facilities and complete chemical and petrochemical production lines;
- facilities on EPC terms;
- installation, supervision over installation, pre-commissioning, designer's supervision, training of Customer's personnel;
- spare parts supply, modernization and replacement of equipment;
- engineering.

Unique manufacturing and testing complex together with advanced scientific and technological potential and human resources of the Company enables to solve non-standard tasks in terms well ahead of traditional ones. Products quality is ensured by means of quality control system at all production stages in accordance with international standard ISO 9001. Designing, production and testing of finished products are performed in compliance with domestic (GOST, Ukr SEPRO) as well as recognized international standards (API, ASME, ISO, EN).

2 Content

3 Content

5 Introduction

The core activity of "SMNPO - Engineering" JSC is design and manufacturing of compressors, gas pumping units and modular compressor stations.

Depending on Client's requirements, compressor equipment is customized for wide ranges of flow rates, pressures, gas compositions and drives.

The Company has powerful production, scientific and technical potential, it can, in the shortest time periods, develop drawings, manufacture, test and deliver the required equipment to the customer, perform its installation, pre-commissioning and, if necessary, provide its maintenance. The Company specializes mostly in fabrication of medium and high-powered gas pumping equipment, from 6.3 to 25 MW, with gas-turbine and electric drives.

"SMNPO - Engineering" JSC offers a wide range of compressor units with the following power capacities:

6.3 MW:

GPA-C-6.3, GPA-C-6.3V with NK-12ST airderivative type engine;
GPA-C-6.3A with D-336 airderivative type engine;
GPA-C-6.3S with DT-71P3 marine type gas-turbine engine.

8 MW:

GPA-C-8 with NK-14ST engine;
GPA-C-8 with GTD-6.3RM/8 engine;
GPA-C-8A with AI-336 engine;
GPA-C-8S with DT70P engine.

10 MW:

GPA-C-10B with NK-14ST-10 engine.

12 MW:

GPA-C-12P with PS-90GP-1 airderivative type engine.

16 MW:

GPA-C-16 with NK-16ST airderivative type engine;
GPU-16 with DJ-59L marine type gas-turbine engine;
GPA-C-16S with DG-90 marine type gas-turbine engine;
GPA-C-16L with AL-31ST marine type gas-turbine engine;
GPA-C-16P with PS-90GP-2 airderivative type engine.

18 MW:

GPA-C-18 with NK-16-18STD airderivative type engine.

25 MW:

GPA-C-25 with NK-36ST airderivative type engine;
GPA-C-25S with DU-80L1 marine type engine.

All units are packaged with microprocessor control systems based on the modern element base. If the Customers so desire, units can be packaged with exhaust gases heat utilizers.

The "SMNPO - Engineering" JSC's specialists have mastered the fabrication of units with dopeless oil-free compressors with dry gas seals, electromagnetic bearings and "dry" clutch. The Company also mastered production of gas pumping units with centrifugal compressors of corrosion-resistant design for sulfurous gas compression.

This catalogue lists data regarding units manufactured over the last 8-10 years. If the Customer so desires, units with required working characteristics can be supplied, either with oil-free or with oil compressors, with gas-turbine engines by any international manufacturer or with electric engines, modular or in individual shelter buildings.

For associated petroleum gas compression, packaged compressor lines are created which include turbo-compressor units (TKA) with high compression levels (2-20 and more), intermediate and end gas coolers and separation filters. Like for GPUs, an entire range of gas-turbine engines can be used. TCU can be supplied either with gas coolers and separation filters or without them.

No.	Suction Pressure kgf/cm^2	Discharge Pressure kgf/cm^2	Flow Rate Capacity MMCMD	Recommended GPU	Catalogue page No.
1	6.0	14.0	3.3	GPA-C-6.3A/14-2.3	9
2	7.0	21.0	8.3	GPA-C5-16S/21-3.0M1	10
3	10.0	20.0	6.0	GPA-C-8D/20-2.0M1	11
4	10.0	21.0	12.5	GPA-C5-16S/21-2.2	12
5	18.0	41.0	5.0	GPA-C-8B/41-2.2	13
6	33.0	76.0	12.0	GPA-C5-16SD/76-2.2M1	14
7	33.0	55.0	8.0	GPA-C-8A/55-1.7	15
8	34.0	76.0	12.0	GPA-C5-16S/76-2.2	16
9	35.0	73.0	12.7	GPA-C-16/73-2.1M1	17
10	36.0	76.0	3.0	GPA-C-6.3V/76-2.1M1	18
11	38.0	56.0	17.3	GPA-C-10B/56-1.44	19
12	38.0	56.0	17.0	GPA-C-10BD/56-1.44	20
13	45.0	76.0	4.5	GPA-C-4.0A/76-1.7	21
14	45.0	76.0	21.5	GPA-C3-16S/76-1.7M	22
15	45.0	76.0	21.5	GPA-C3-16S/76-1.7M	23
16	45.0	100.0	12.5	GPA-C-16/102-2.32M	24
17	47.0	80.0	17.14	GPA-C-16PD/80-1.7M1	25
18	48.9	76.0	16.6	GPA-C-16PD/76-1.6M1	26
19	50.0	74.0	20.0	GPA-C1-25S/74-1.5M1	27
20	52.0	76.0	32.2	GPA-C1-16L/76-1.44	28
21	52.0	76.0	47.24	GPA-C-25BD/76-1.44M	29
22	52.0	76.0	47.0	GPA-C-25SD/76-1.44M	30
23	55.0	76.0	12.0	GPA-C-8A/76-1.37	31
24	63.0	85.0	38.0	GPA-C1-16S/85-1.35M1	32
25	68.0	92.0	27.1	GPA-C1-25S/92-1.35M1	33
26	70.0	100.0	45.0	GPA-C-25SD/100-1.44M	34
27	72.0	100.0	48.0	GPA-C-25SD/100-1.44M1	35
28	74.0	100.0	60.0	GPA-C-25BD/100-1.35M	36
29	74.0	100.0	60.0	GPA-C-25SD/100-1.35M	37

GPU identification legend

For example: **GPA-C1-16AD/76-1.44M1**

GPA - gas-pumping unit
C - the unit includes a centrifugal compressor
  C1…C5 - modifications of compressor rotor bundles
16 - engine capacity, MW
A - type of the gas-turbine engine:
  A - airderivative, modification D-336-2
  B - airderivative NK-14ST and NK-36ST
  V - airderivative NK-12ST
  S - marine, modification DG90
  L - airderivative, modification AL-31
  P - airderivative, modification PS-90
  without letter - airderivative GTD-6.3RM/8
D - in an individual modular self-supporting shelter building,
  without the letter "D" - container-modular unit design
76 - compressor discharge pressure, kgf/cm^2
1.44 - pressure ratio
M1 - compressor design:
  M - with magnetic suspension of rotor a and dry gas seal (“dopeless” compressor)
  M1 - with oil bearings and a dry gas seal

Also, compressors can be manufactured according to corrosion-resistant design, of steels resistant to sulfurous gas (H_2S). This design is indicated by letter “K” after the end pressure value.

7 Turbo-Compressor Units

No.	Suction Pressure kgf/cm^2	Discharge Pressure kgf/cm^2	Flow Rate Capacity MMCMD	Recommended TCU	Catalogue page No.
1	0.16	0.65	1.3	TKA-C-8/0.6-5.6M1	39
2	0.233	0.965	2.48	THA-C-8B/0.233-0.965	40
3	0.2	4.7	16.55	TKA-C-12P/0.2-4.7M1	41
4	0.3	5.6	2.28	TKA-C-16/0.3-5.6M1	42
5	0.3	8.0	1.14	TKA-C-8BD/0.3-8.0	43
6	0.4	6.1	1.8	TKA-C-12/0.4-6.1M1	44
7	0.45	7.6	2.0	TKA-C-16/4.0-76	55
8	0.5	7.7	2.3	TKA-C-18/4.0-77.5M1	46
9	0.6	5.5	5.4	TKA-C-25SD/0.6-5.5M1	47
10	0.97	8.15	1.52	TKA-C-16.0D/3.2-8.1M1	48
11	1.0	4.6	1.58	TKA-C-8C/1.0-4.6	49
12	1.75	7.6	1.65	TKA-C-6.3A/1.75-7.6	50
13	2.1	7.9	3.48	TKA-C-16/2.1-7.9M1	51
14	4.2	29.7	3.64	TKA-C-25S/4.2-29.7M1	52
15	6.5	15.3	6.23	TKA-C-16S/6.5-15.3M1	53

TCU identification legend

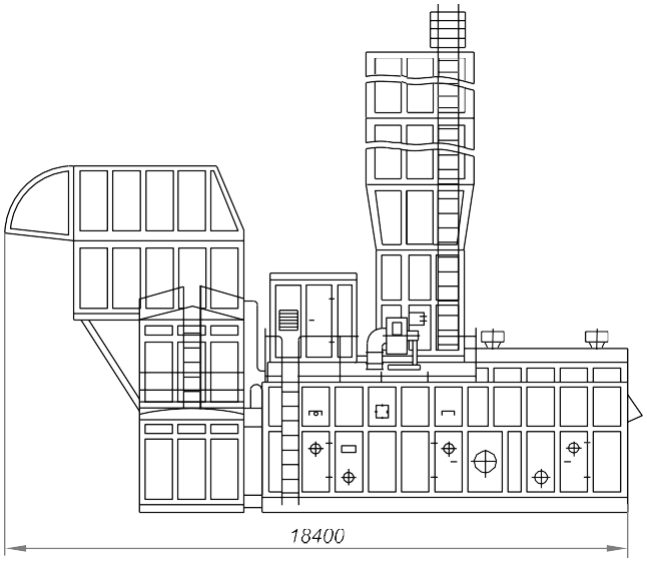
For example: **TKA-C 25SD/0.58-5.5M1**

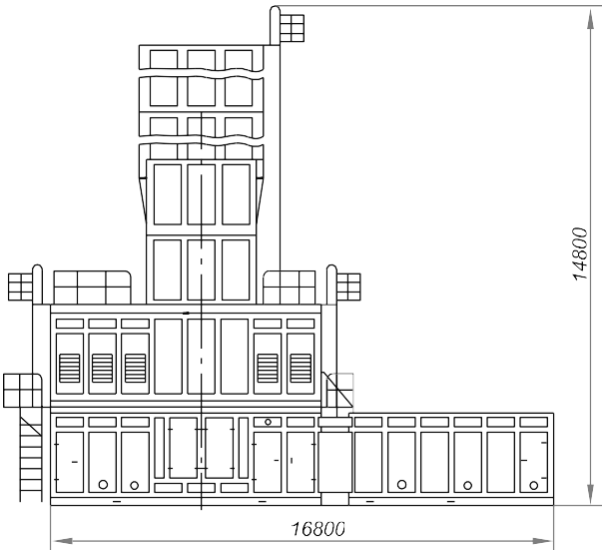
TKA - turbo-compressor package
C - the package includes a centrifugal compressor
25 - engine capacity, MW
S - gas-turbine engine type:
- A - airderivative, modification D-336-2
- B - airderivative NK-14ST and NK-36ST
- V - airderivative NK-12ST
- S - marine, modification DG90
- L - airderivative, modification AL-31
- P - airderivative, modification PS-90
- without letter - airderivative GTD-6.3RM/8

D - in an individual modular self-supporting shelter building,
without the letter "D" - container-modular unit design.
0,58 - suction pressure, MPa
5,5 - discharge pressure, MPa
M1 - compressor design:
- M - with magnetic suspension of rotor a and dry gas seal (“dopeless” compressor)
- M1 - with oil bearings and a dry gas seal

Gas Pumping Units

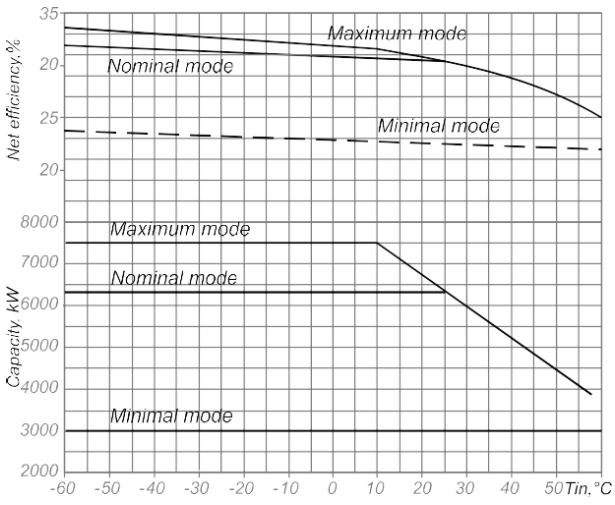
9 Gas Pumping Unit GPA-C-6.3A/14-2.3



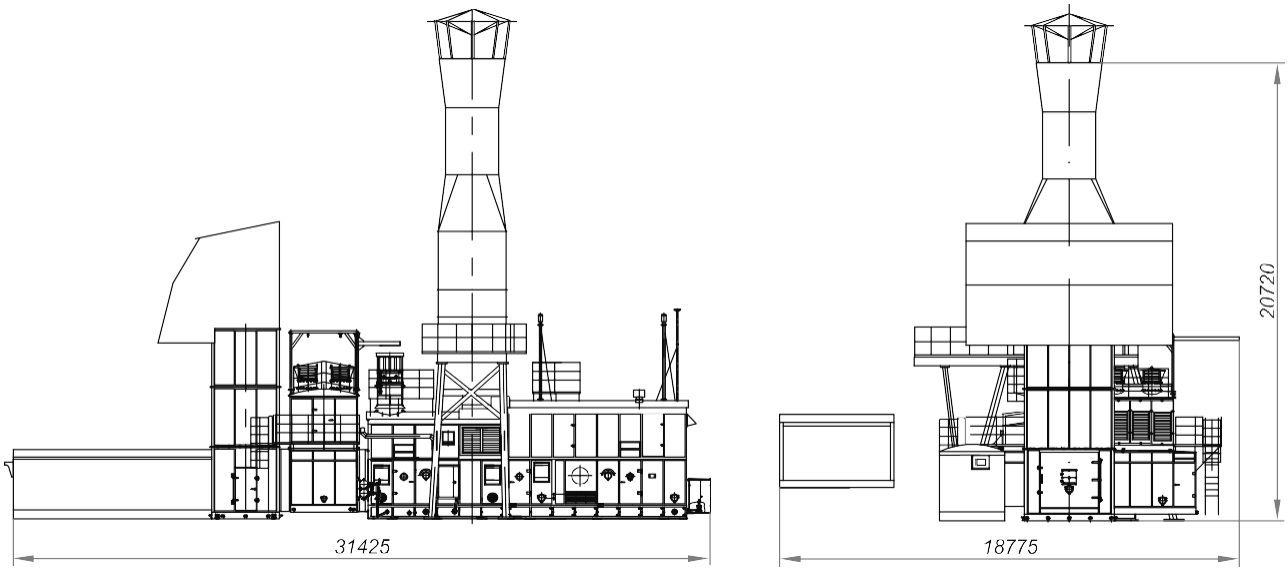


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	MMCMD	3.3
Suction pressure	kgf/cm^2	6.0
Discharge pressure	kgf/cm^2	14.0
Pressure ratio, design		2.3
Engine type	Gas-turbine D-336-2T	
Nominal capacity at engine's coupling (under stationary conditions)	MW	6.3
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	30.0
Compressor type	224GC2-375/6-14A	
Unit weight (dry) in the scope of supply, max	kg	110000

Capacity limitations of D-336-2T depending on air temperature at the engine's inlet

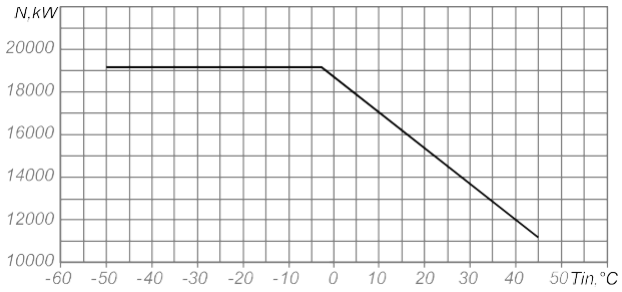


10 Gas Pumping Unit GPA-C5-16S/21-3.0M1

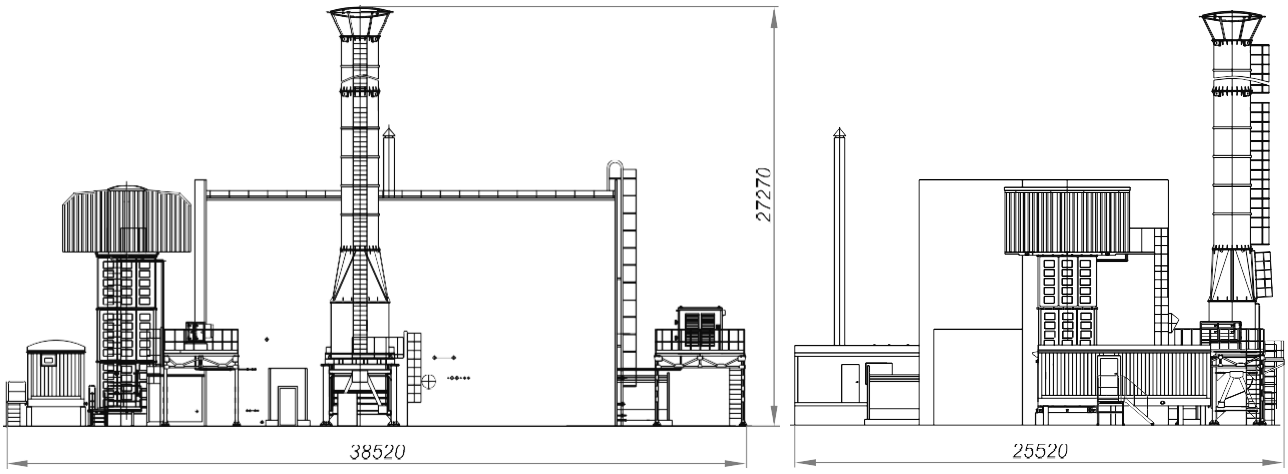


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	8.3
Suction pressure	kgf/cm^2	7.0
Discharge pressure	kgf/cm^2	21.0
Pressure ratio, design		3.0
Engine type	Gas-turbine DG90L2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	33.5
Compressor type	295GC2-800/7-21M1	
Unit weight (dry) in the scope of supply, max	kg	175000

Capacity limitations of DG90 depending on air temperature at the engine's inlet

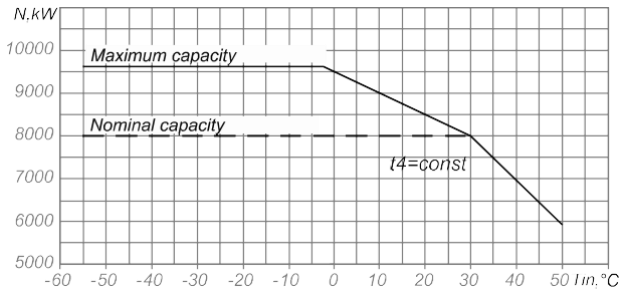


11 Gas Pumping Unit GPA-C-8D/20-2.0M1

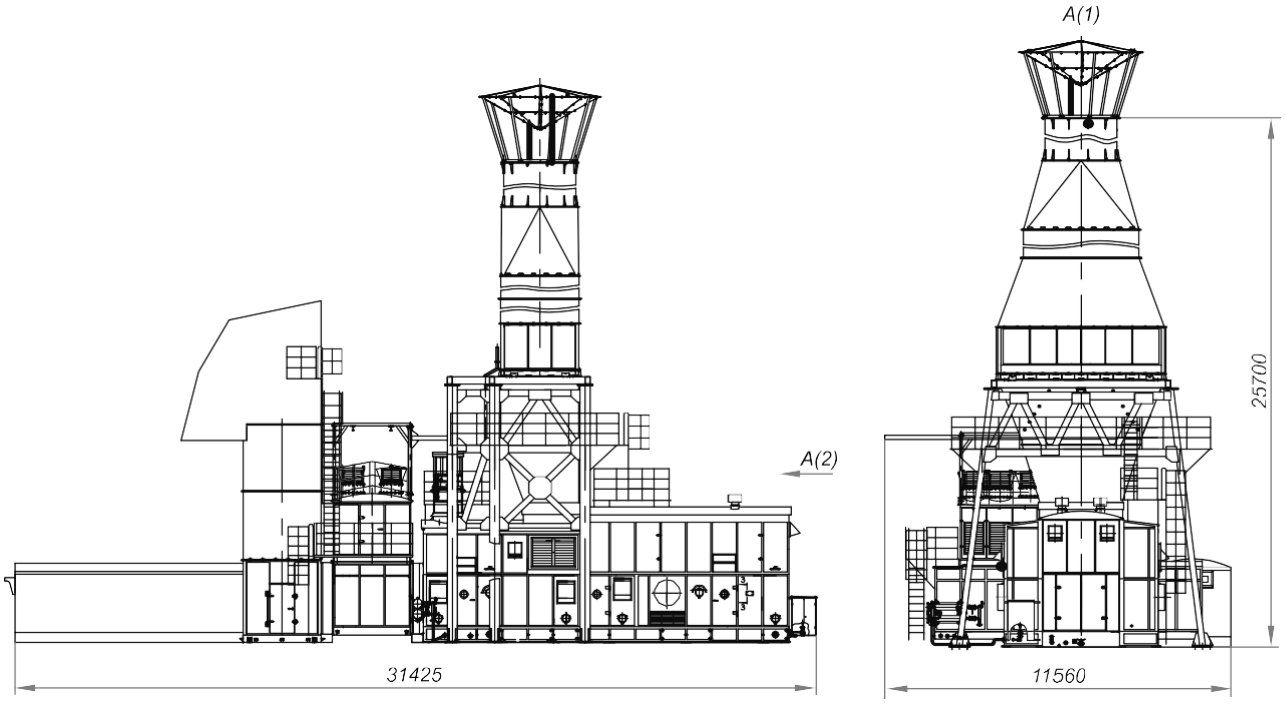


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	6.0
Suction pressure	kgf/cm^2	10.0
Discharge pressure	kgf/cm^2	20.0
Pressure ratio, design		2.0
Engine type	Gas-turbine GTD-6.3RM/8 on frame	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	33.0
Compressor type	294GC2-410/10-20M1235	
Unit weight (dry) in the scope of supply, without shelter, max	kg	319000

Capacity limitations of GTD-6,3RM/8 depending on air temperature at the engine's inlet

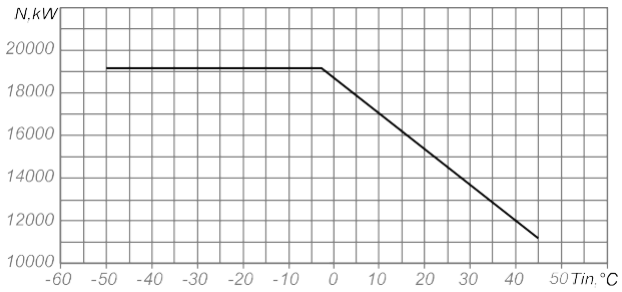


Gas Pumping Unit GPA-C5-16S/21-2.2

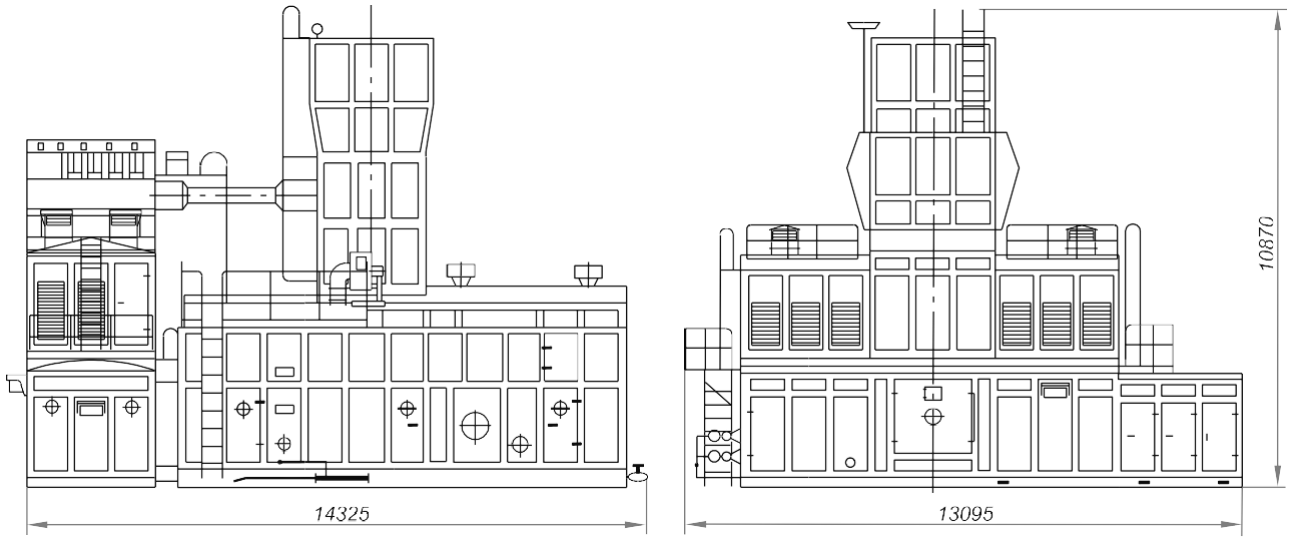


Technical parameters		
		«UHL.1»
		12.5
		10.0
		21 0
		2.2
Engine type	Gas-turbine DG90L2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
	rpm	5200
	%	33.5
Compressor type	295GC2-880/9.5-21	
Unit weight (dry) in the scope of supply, max	kg	245000

Capacity limitations of DG90 depending on air temperature at the engine's inlet

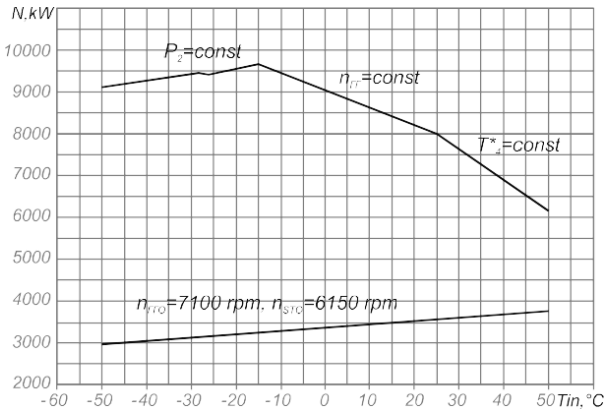


13 Gas Pumping Unit GPA-C-8B/41-2.2

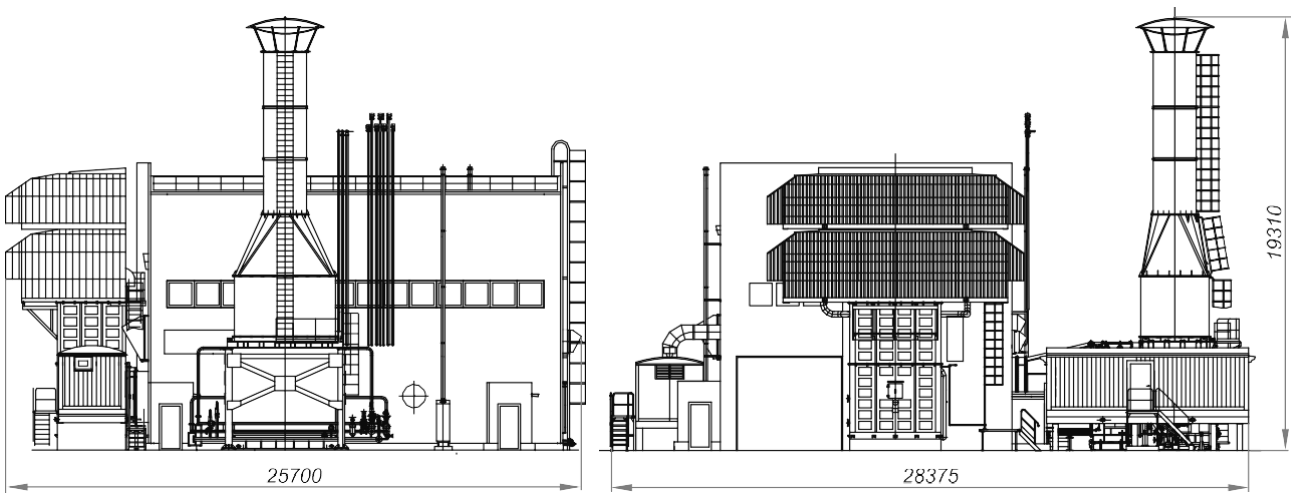


Technical parameters		
		«U.1»
	MMCMD	5.0
		18.0
		41.0
		2.2
Engine type	Gas-turbine NK-14ST-8	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
	rpm	8200
	%	30.0
Compressor type	225GC2-200/19-41	
Unit weight (dry) in the scope of supply, max	kg	95000

Capacity limitations of NK-14ST-8 depending on air temperature at the engine's inlet with regard to inlet and outlet losses

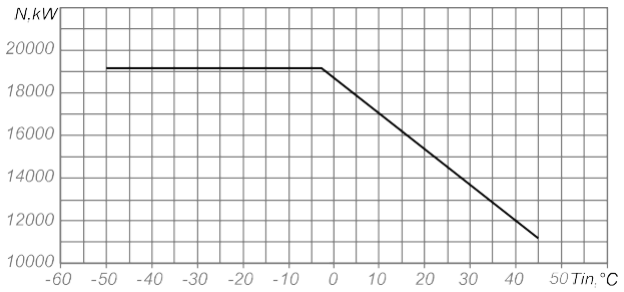


Gas Pumping Unit GPA-C5-16SD/76-2.2M1

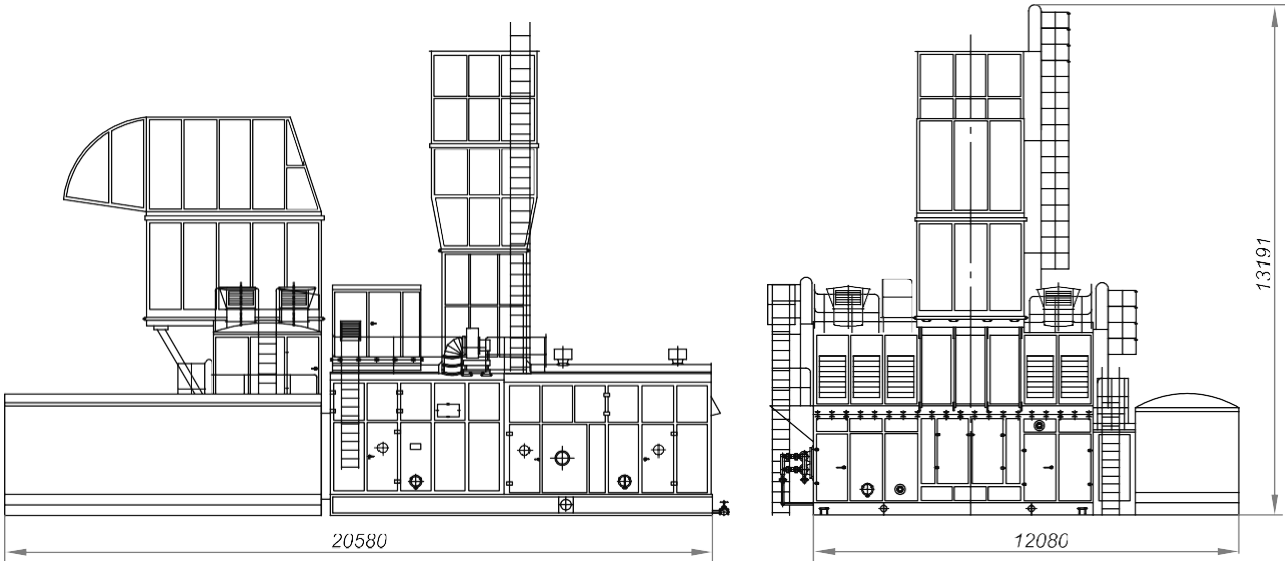


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	12.0
Suction pressure	kgf/cm^2	33.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		2.2
Engine type	Gas-turbine DG90L2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	33.5
Compressor type	295GC2-215/35-76M1	
Unit weight (dry) in the scope of supply, max	kg	255000

Capacity limitations of DG90 depending on air temperature at the engine's inlet

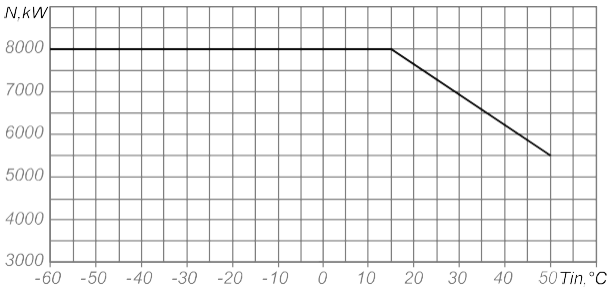


Gas Pumping Unit GPA-C-8A/55-1.7

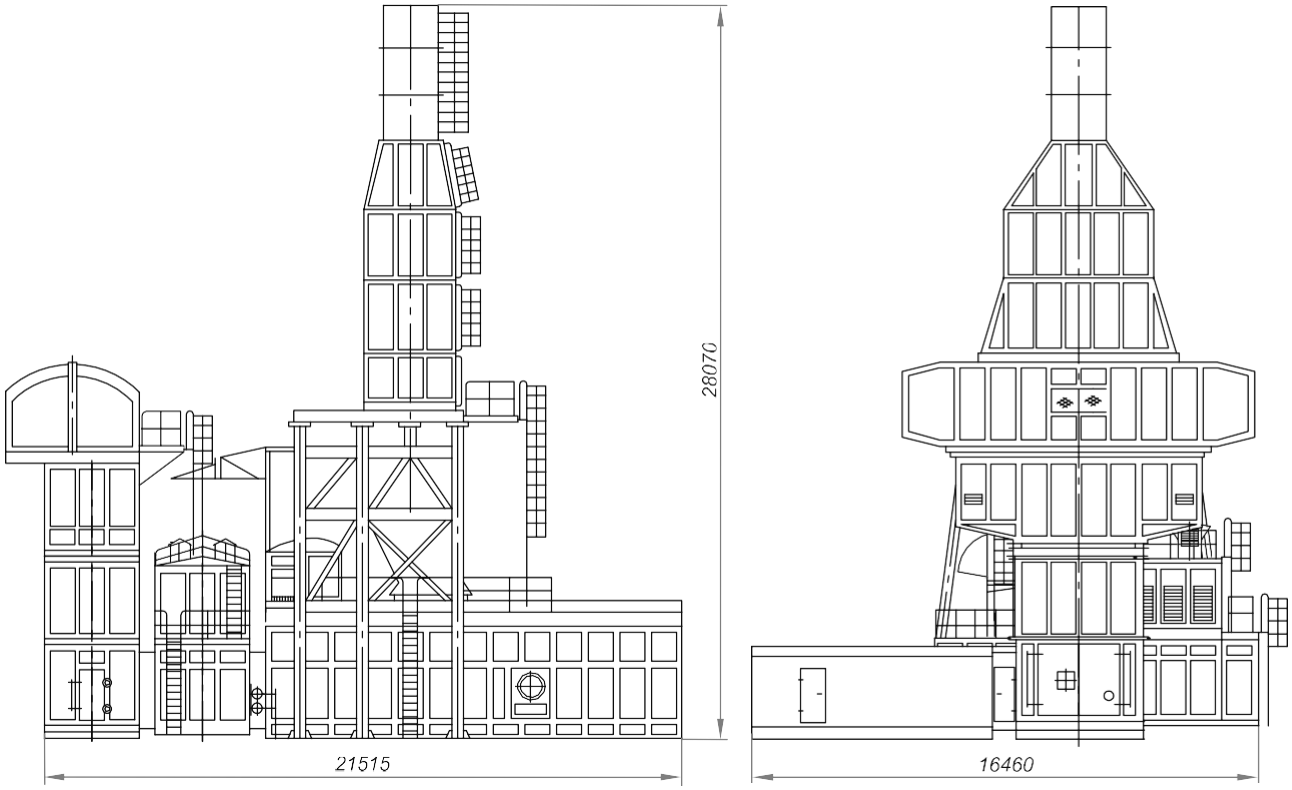


Technical parameters		
		«U.1»
	MMCMD	8.0
		33.0
		55.0
		1.7
Engine type	Gas-turbine AI-336-2-8	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
	rpm	8200
	%	318
Compressor type	8GC2-160/33-56	
Unit weight (dry) in the scope of supply, max	kg	110000

Capacity limitations of AI-336-2-8 depending on air temperature at the engine's inlet

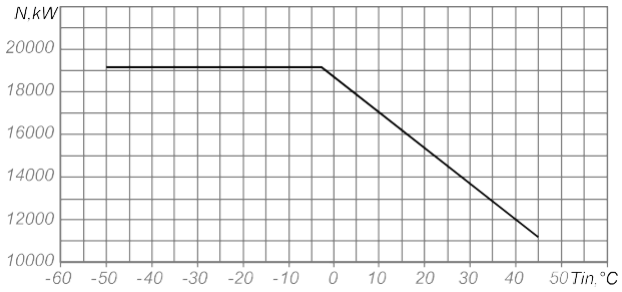


Gas Pumping Unit GPA-C5-16S/76-2.2

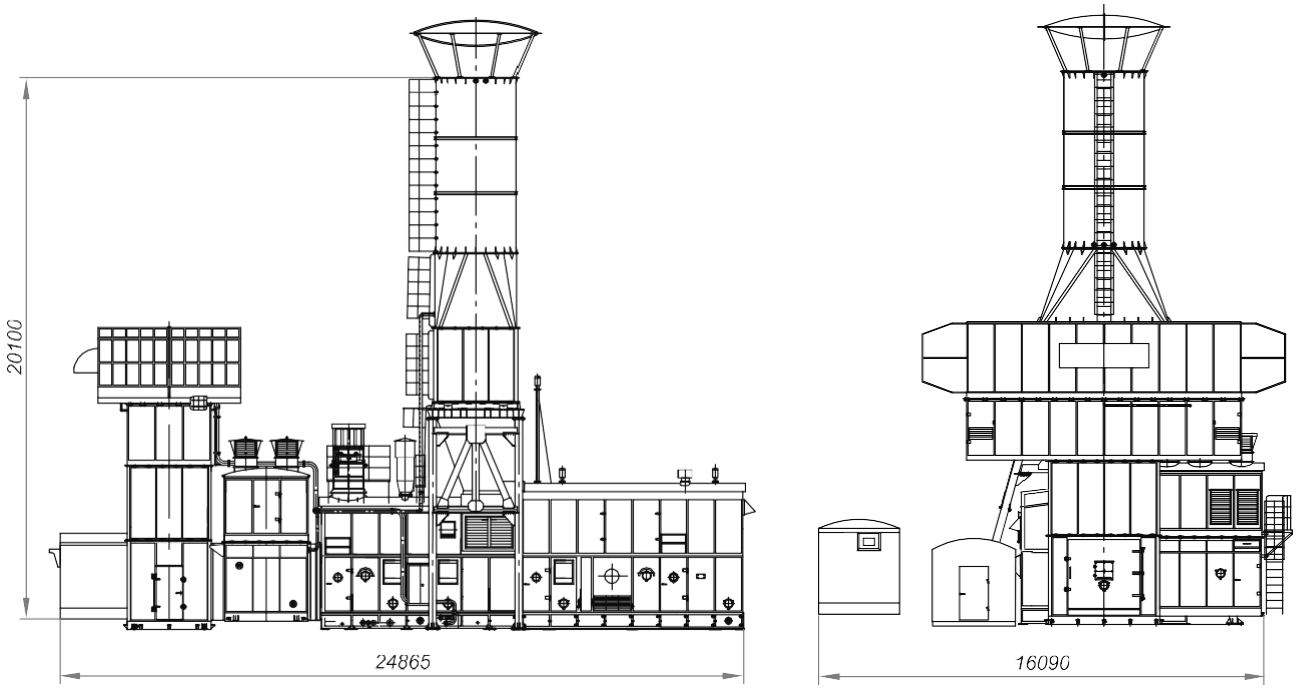


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	12.0
Suction pressure	kgf/cm^2	34.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		2.2
Engine type	Gas-turbine DG90L2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	34.0
Compressor type	295GC2-230/35-76	
Unit weight (dry) in the scope of supply, max	kg	245000

Capacity limitations of DG90 depending on air temperature at the engine's inlet

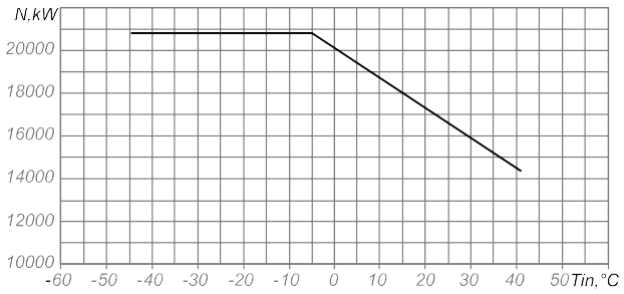


17 Gas Pumping Unit GPA-C-16/73-2.1M1

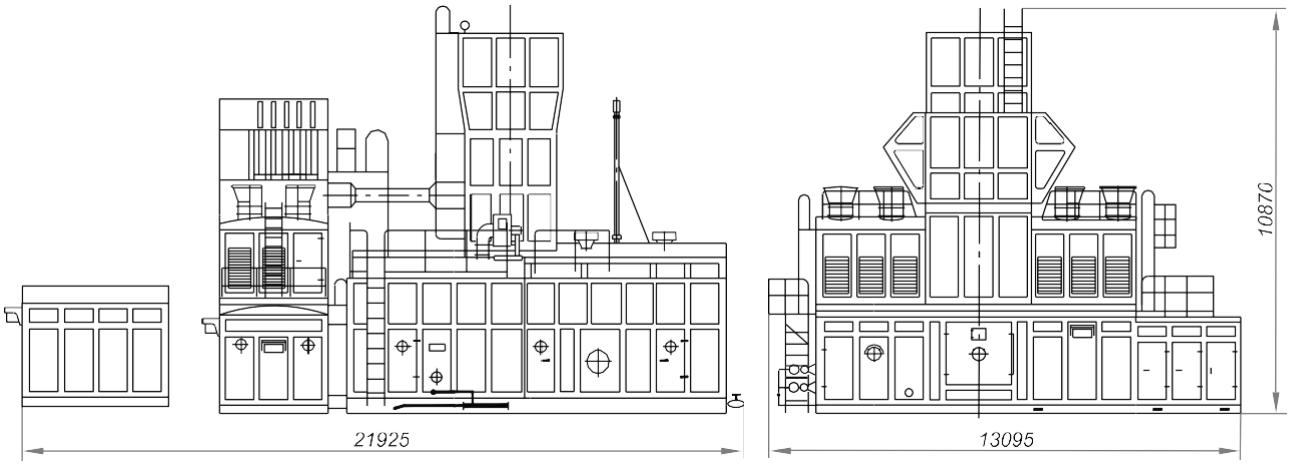


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	12.7
Suction pressure	kgf/cm^2	35.0
Discharge pressure	kgf/cm^2	73.0
Pressure ratio, design		2.176
Engine type	Gas-turbine NK-16-18STD	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	29.4
Compressor type	295GC2-245/35-75M1	
Unit weight (dry) in the scope of supply, max	kg	280000

Capacity limitations of NK-16-18STD depending on air temperature at the engine's inlet

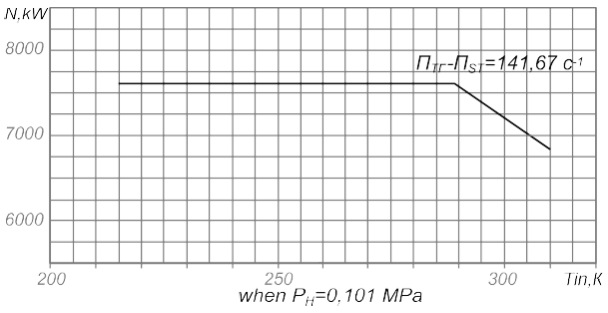


Gas Pumping Unit GPA-C-6.3V/76-2.1M1

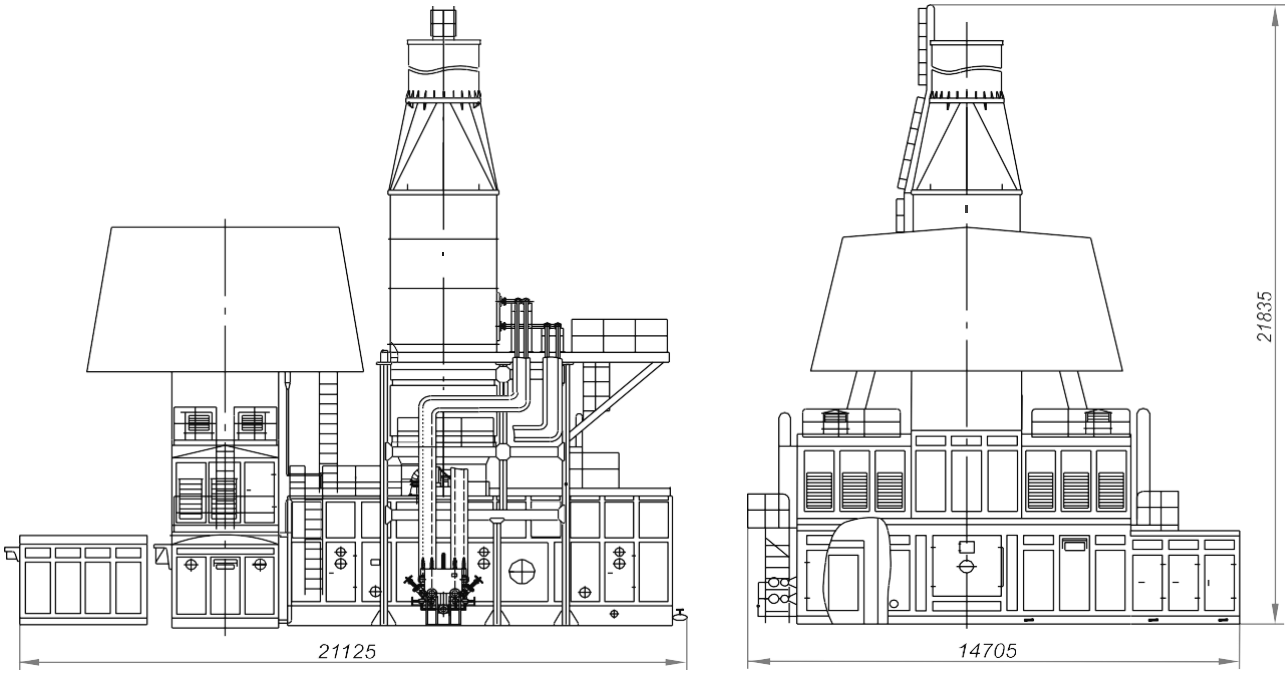


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	MMCMD	3.0
Suction pressure	kgf/cm^2	36.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		2.139
Engine type	Gas-turbine NK-12ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	6.3
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	25.0
Compressor type	224GC2-73/37-76M12	
Unit weight (dry) in the scope of supply, max	kg	95000

Capacity limitations of NK-12ST depending on air temperature at the engine's inlet

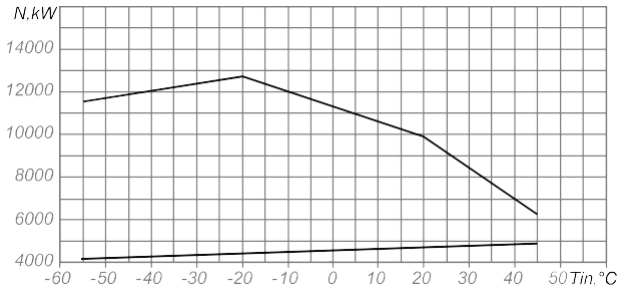


Gas Pumping Unit GPA-C-16/73-2.1M1

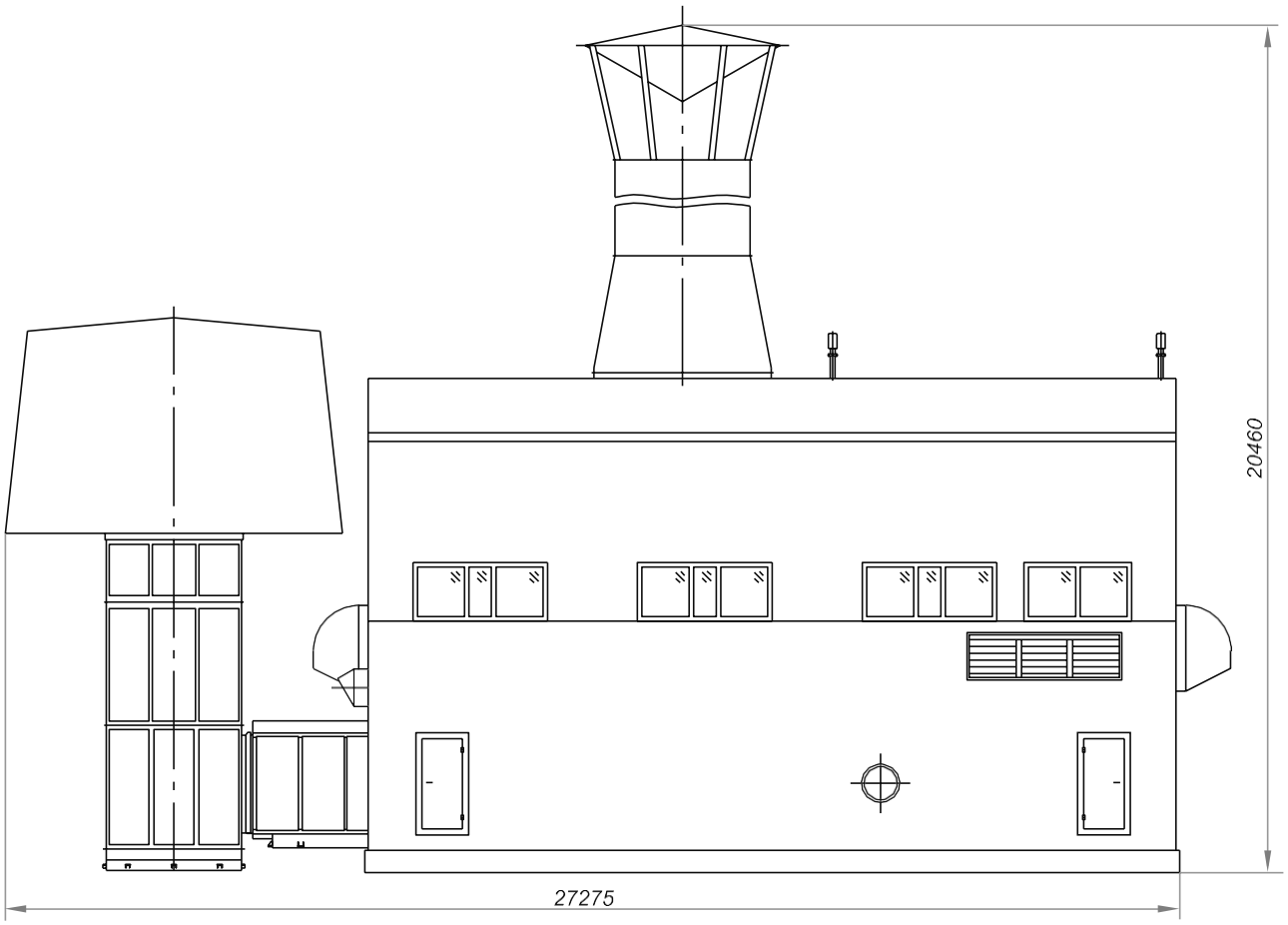


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	MMCMD	17.3
Suction pressure	kgf/cm^2	38.0
Discharge pressure	kgf/cm^2	56.0
Pressure ratio, design		1.44
Engine type	Gas-turbine NK-14ST-10	
Nominal capacity at engine's coupling (under stationary conditions)	MW	10.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	32
Compressor type	201GC2-290/39-56	
Unit weight (dry) in the scope of supply, max	kg	198000

Capacity limitations of NK-14ST-10 depending on air temperature at the engine's inlet

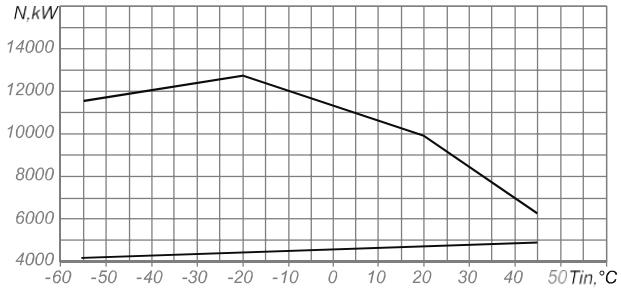


Gas Pumping Unit GPA-C-6.3V/76-2.1M1

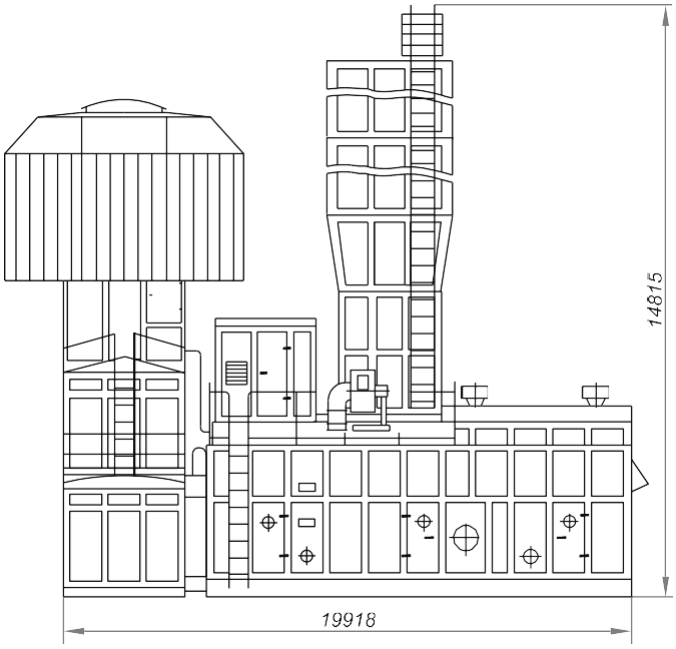


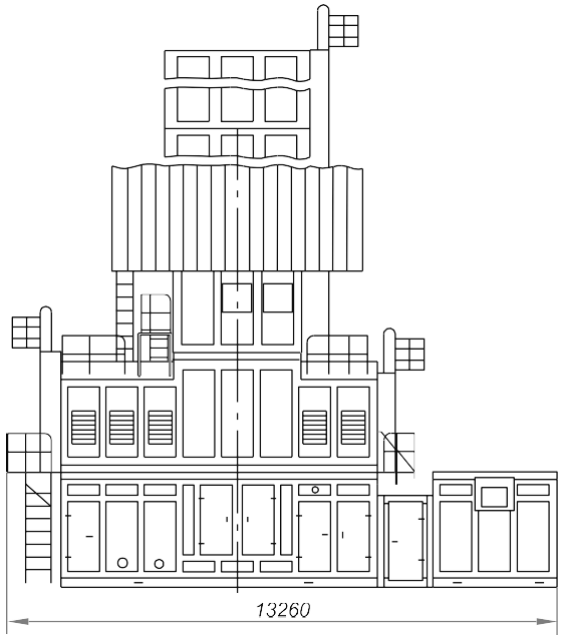
Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	17.0
Suction pressure	kgf/cm^2	38.0
Discharge pressure	kgf/cm^2	56.0
Pressure ratio, design		1.44
Engine type	Gas-turbine NK-14ST-10	
Nominal capacity at engine's coupling (under stationary conditions)	MW	10.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	32
Compressor type	222GC2-290/39-56	
Unit weight (dry) in the scope of supply, max	kg	153000

Capacity limitations of NK-14ST-10 depending on air temperature at the engine's inlet



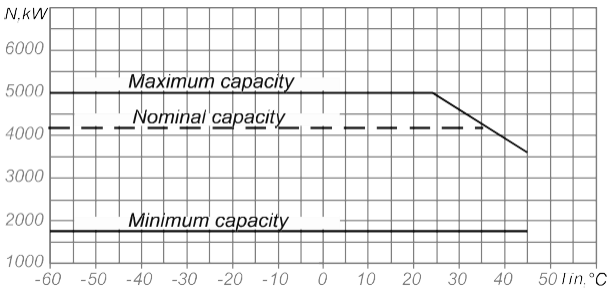
21 Gas Pumping Unit GPA-C-4.0A/76-1.7



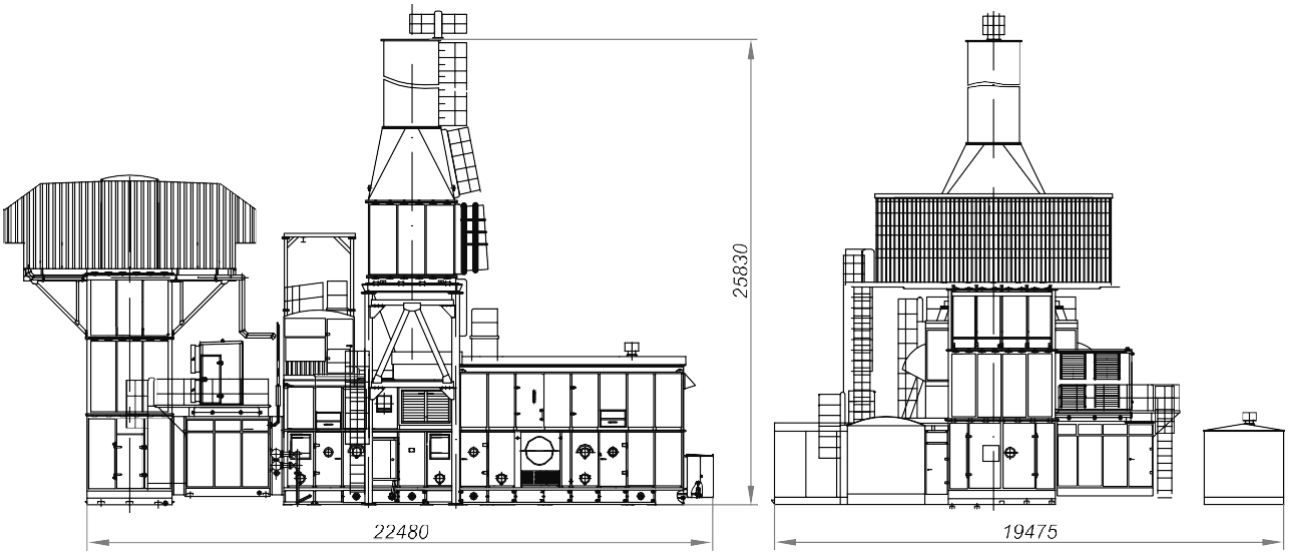


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	MMCMD	4.5
Suction pressure	kgf/cm^2	45.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.7
Engine type	Gas-turbine D-336-2-4	
Nominal capacity at engine's coupling (under stationary conditions)	MW	4.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	25.5
Compressor type	GC2-87/44.5-76	
Unit weight (dry) in the scope of supply, max	kg	110000

Capacity limitations of D-336-2-4 depending on air temperature at the engine's inlet

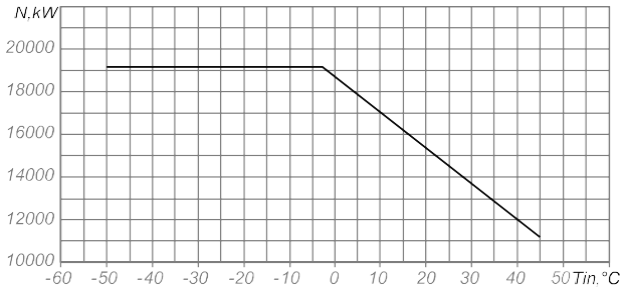


Gas Pumping Unit GPA-C3-16S/76-1.7M

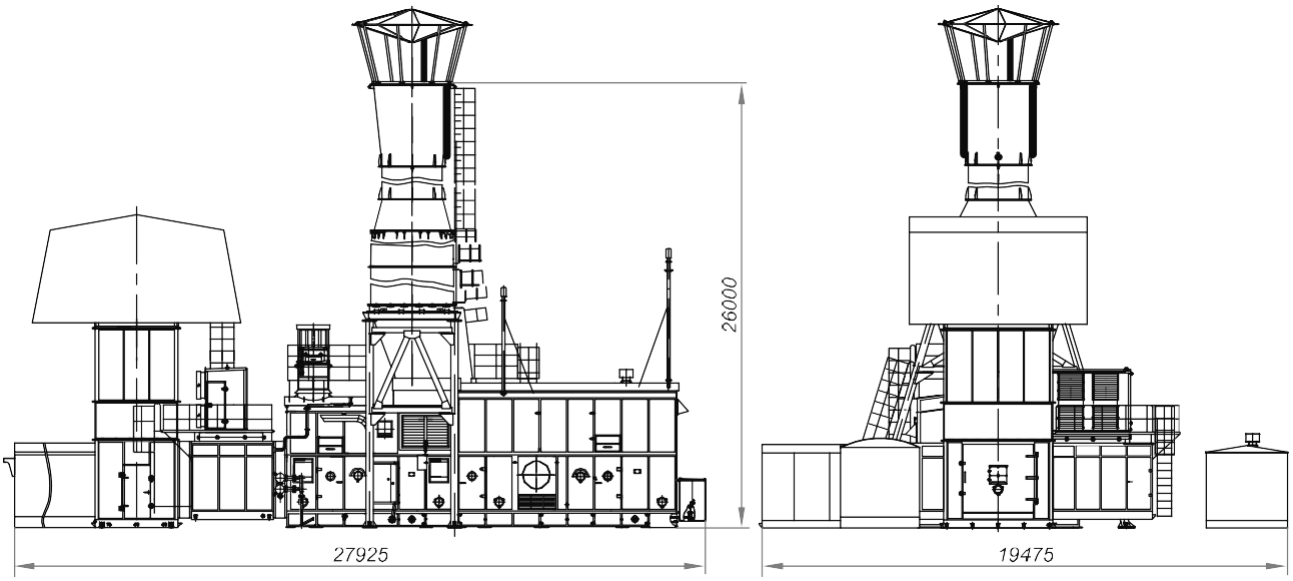


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	21.5
Suction pressure	kgf/cm^2	45.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.7
Engine type	Gas-turbine DG90L2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	34.0
Compressor type	323GC2-310/45-76M	
Unit weight (dry) in the scope of supply, max	kg	217000

Capacity limitations of DG90 depending on air temperature at the engine's inlet

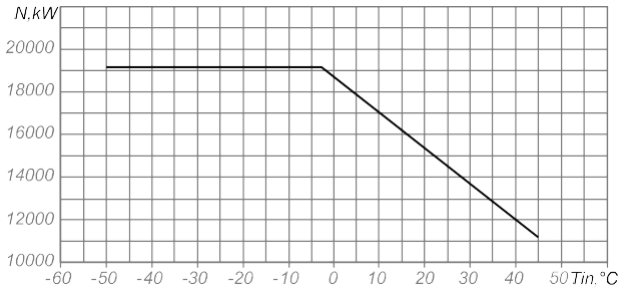


Gas Pumping Unit GPA-C3-16S/76-1.7M

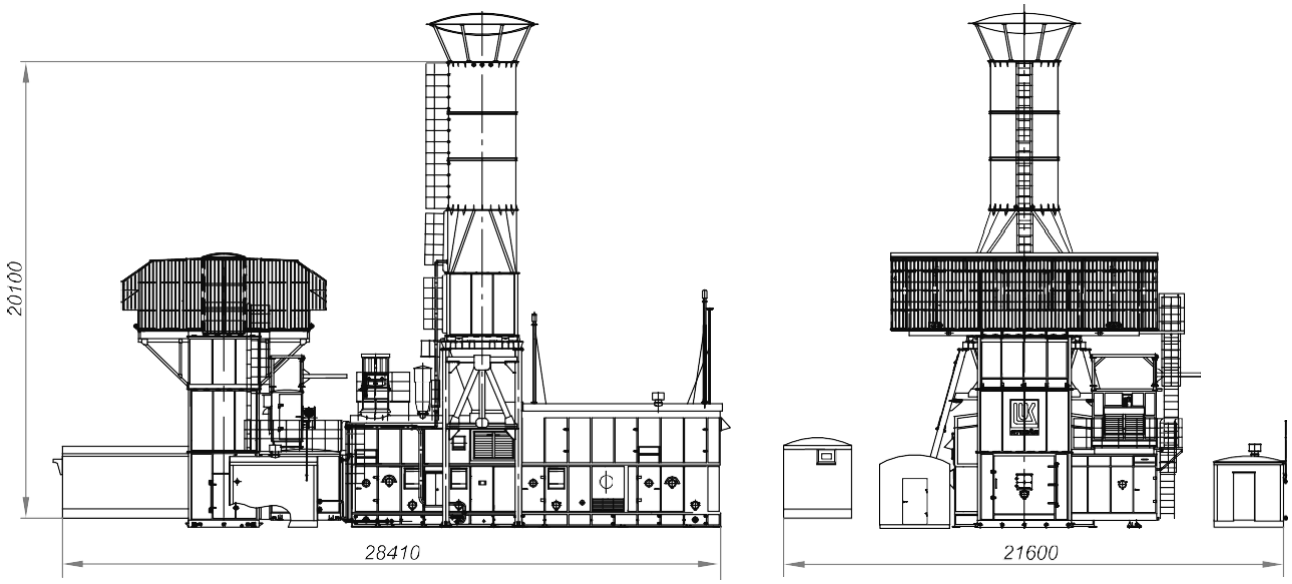


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	21.5
Suction pressure	kgf/cm^2	45.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.7
Engine type	Gas-turbine DG90L2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	33.5
Compressor type	323GC2-310/45-76M	
Unit weight (dry) in the scope of supply, max	kg	220000

Capacity limitations of DG90 depending on air temperature at the engine's inlet

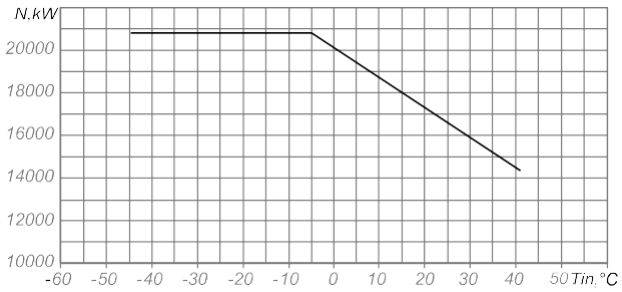


Gas Pumping Unit GPA-C-16/102-2.32M

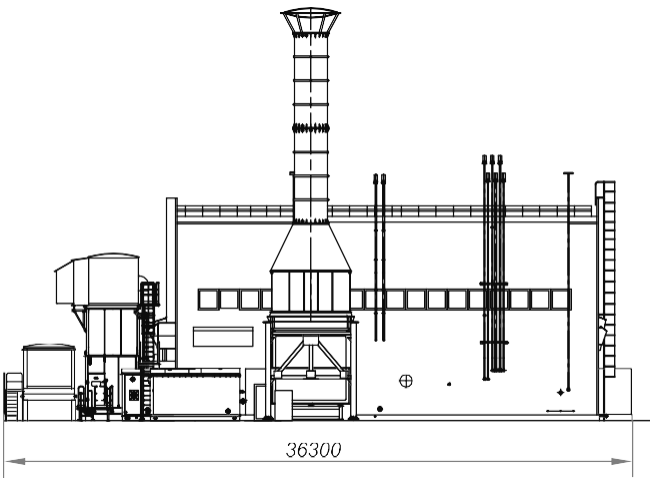


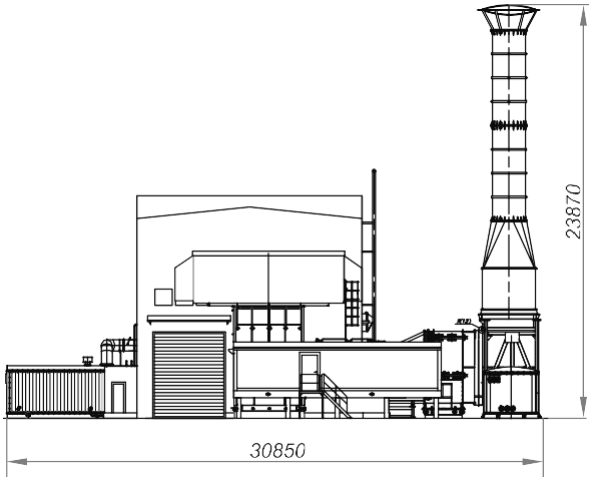
Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	12.5
Suction pressure	kgf/cm^2	45.0
Discharge pressure	kgf/cm^2	100.0
Pressure ratio, design		2.33
Engine type	Gas-turbine NK-16-18STD	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	29.4
Compressor type	295GC2-190/44-100M	
Unit weight (dry) in the scope of supply, max	kg	245000

Capacity limitations of NK-16-18STD depending on air temperature at the engine's inlet



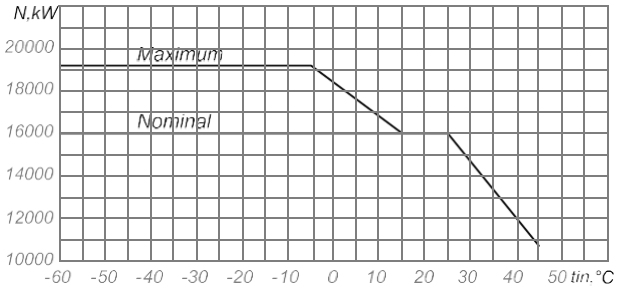
Gas Pumping Unit GPA-C-16PD/80-1.7M1



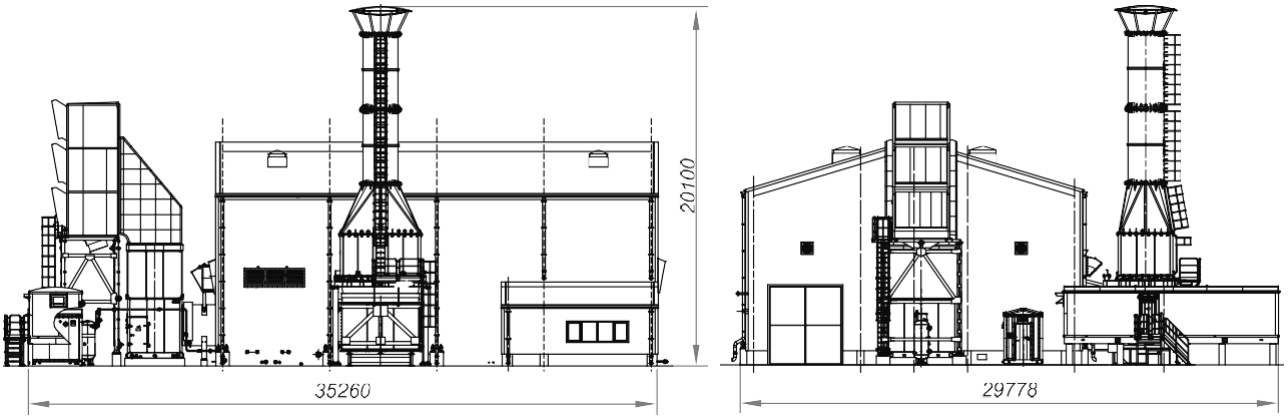


Technical parameters		
Climatic modification		«UHL»
Flow rate capacity	MMCMD	17.14
Suction pressure	kgf/cm^2	47.0
Discharge pressure	kgf/cm^2	80.0
Pressure ratio, design		1.7
Engine type	GTU-16P with PS-90GP-2 engine	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	36.3
Compressor type	295GC2-238/47-80M1	
Unit weight (dry) in the scope of supply, max	kg	273000

Capacity limitations of PS-90GP-2 depending on air temperature at the engine's inlet

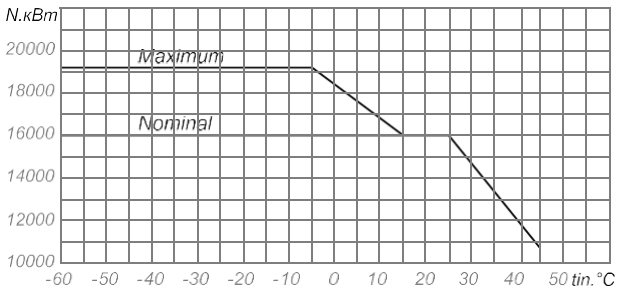


Gas Pumping Unit GPA-C-16PD/76-1.6M1

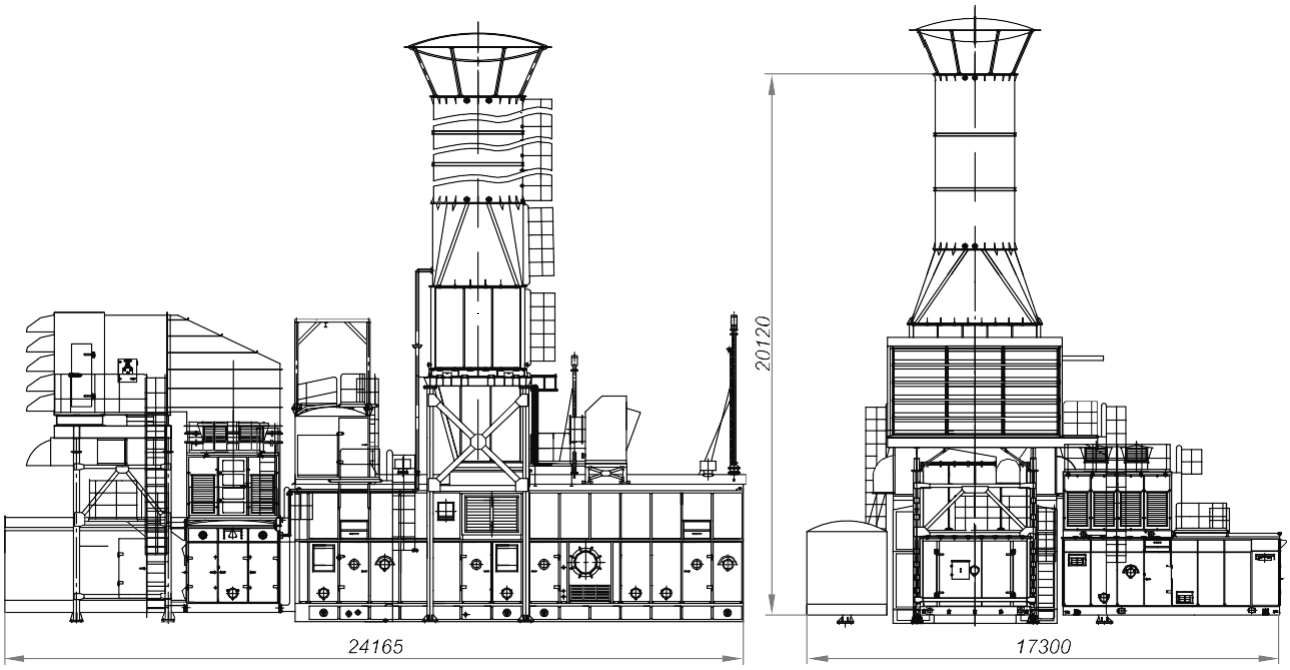


Technical parameters		
Climatic modification		«UHL»
Flow rate capacity	MMCMD	16.6
Suction pressure	kgf/cm^2	48.9
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.6
Engine type	Gas-turbine PS-90GP-2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	85.3
Compressor type	294GC2-260/48-76M1	
Unit weight (dry) in the scope of supply, max	kg	227000

Capacity limitations of PS-90GP-2 depending on air temperature at the engine's inlet

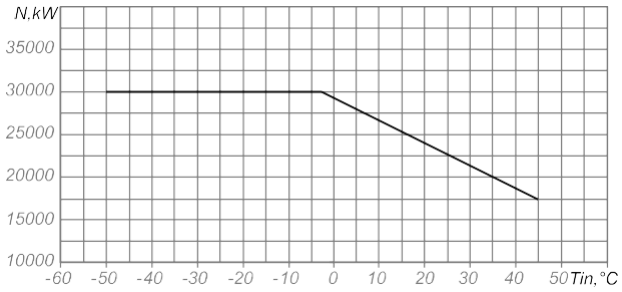


27 Gas Pumping Unit GPA-C1-25S/74-1.5M1

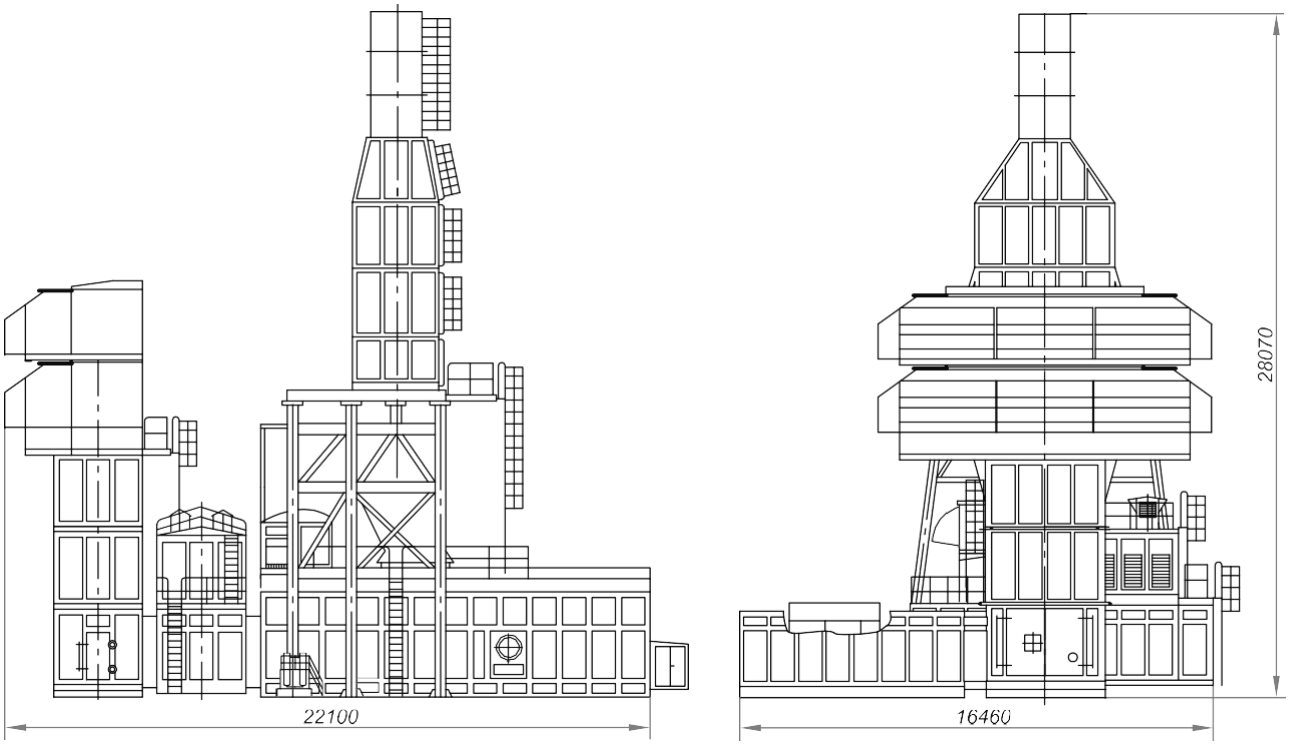


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	20.0
Suction pressure	kgf/cm^2	50.0
Discharge pressure	kgf/cm^2	74.0
Pressure ratio, design		1.504
Engine type	Gas-turbine DU80L	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	321GC2-292/50-76M1	
Unit weight (dry) in the scope of supply, max	kg	195000

Capacity limitations of DU80L depending on air temperature at the engine's inlet

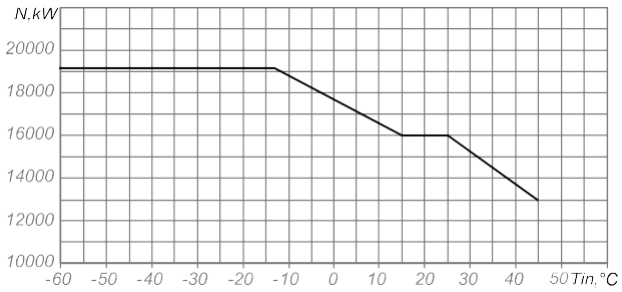


Gas Pumping Unit GPA-C1-16L/76-1.44

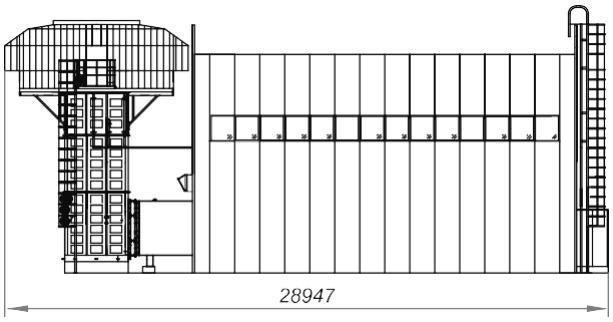


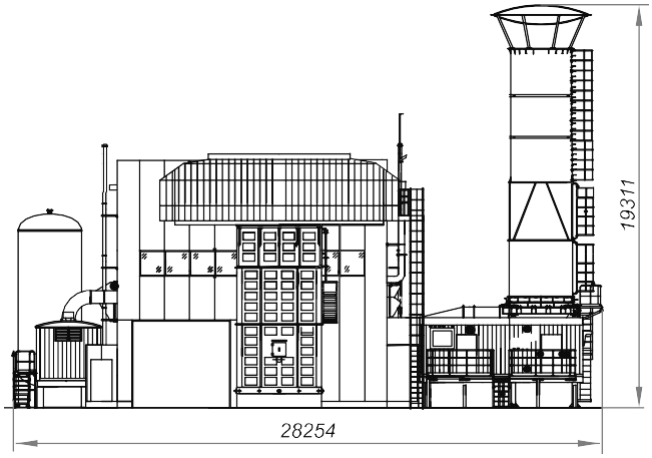
Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	32.2
Suction pressure	kgf/cm^2	52.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.44
Engine type	Gas-turbine AL-31ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5250
Efficiency (under stationary conditions)	%	36
Compressor type	291GC2-395/53-76S	
Unit weight (dry) in the scope of supply, max	kg	234600

Capacity limitations of AL-31ST depending on air temperature at the engine's inlet



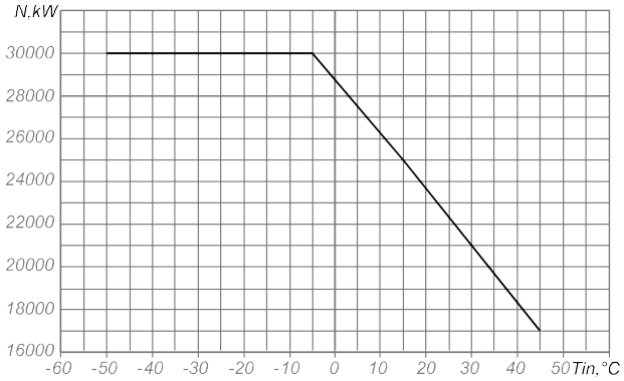
Gas Pumping Unit GPA-C-25BD/76-1.44M



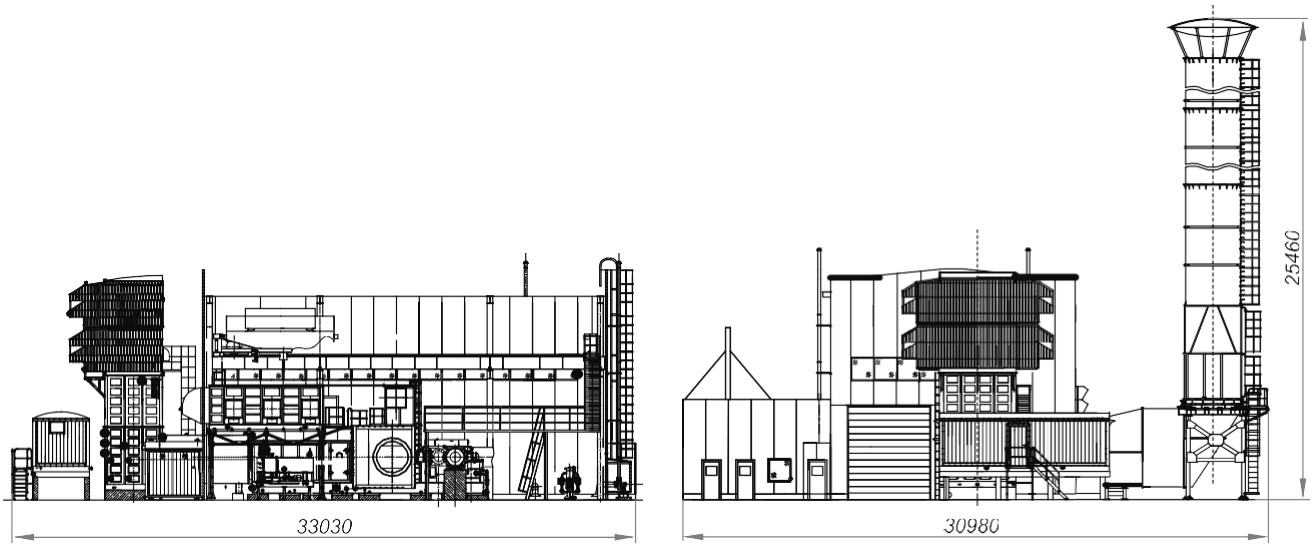


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	47.243
Suction pressure	kgf/cm^2	52.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.44
Engine type	Gas-turbine NK-36ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.5
Compressor type	321GC2-560/53-76M	
Unit weight (dry) in the scope of supply, without shelter, max	kg	265000

Capacity limitations of NK-36ST depending on air temperature at the engine's inlet

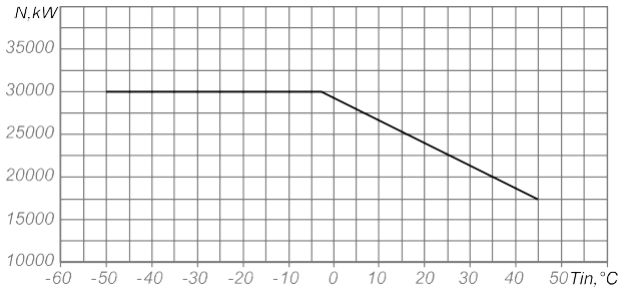


Gas Pumping Unit GPA-C-25SD/76-1.44M

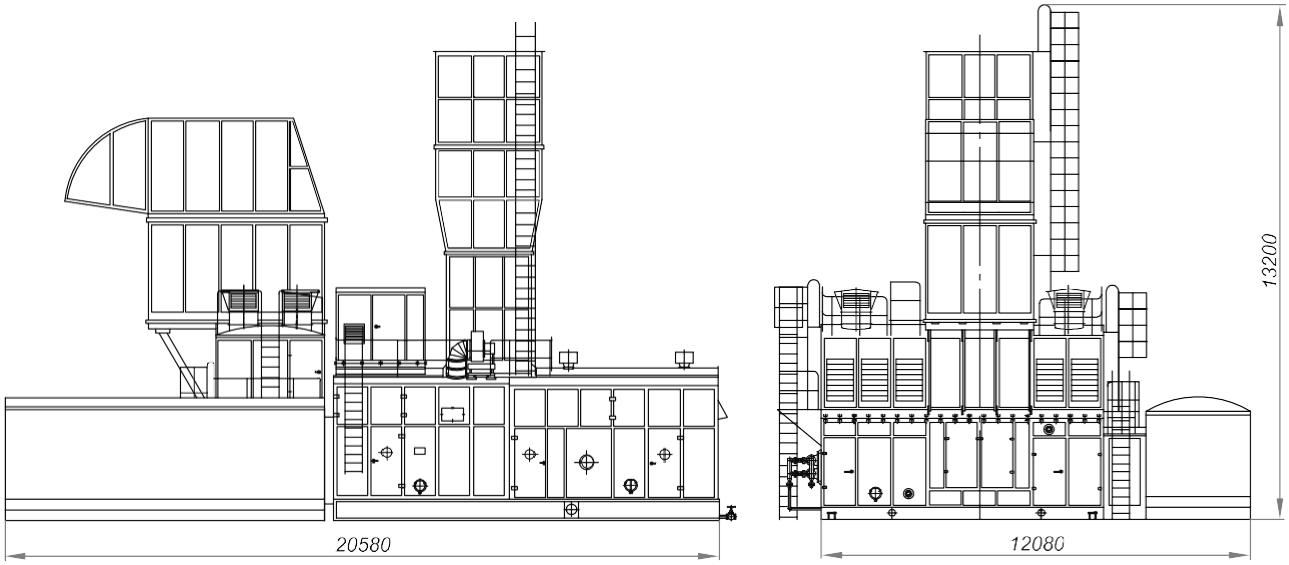


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	47.0
Suction pressure	kgf/cm^2	52.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.44
Engine type	Gas-turbine DU80L1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	321GC2-560/53-76M	
Unit weight (dry) in the scope of supply, without shelter, max	kg	270000

Capacity limitations of DU80L1 depending on air temperature at the engine's inlet

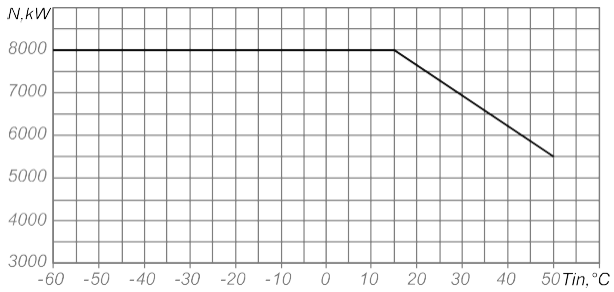


Gas Pumping Unit GPA-C-8A/76-1.37

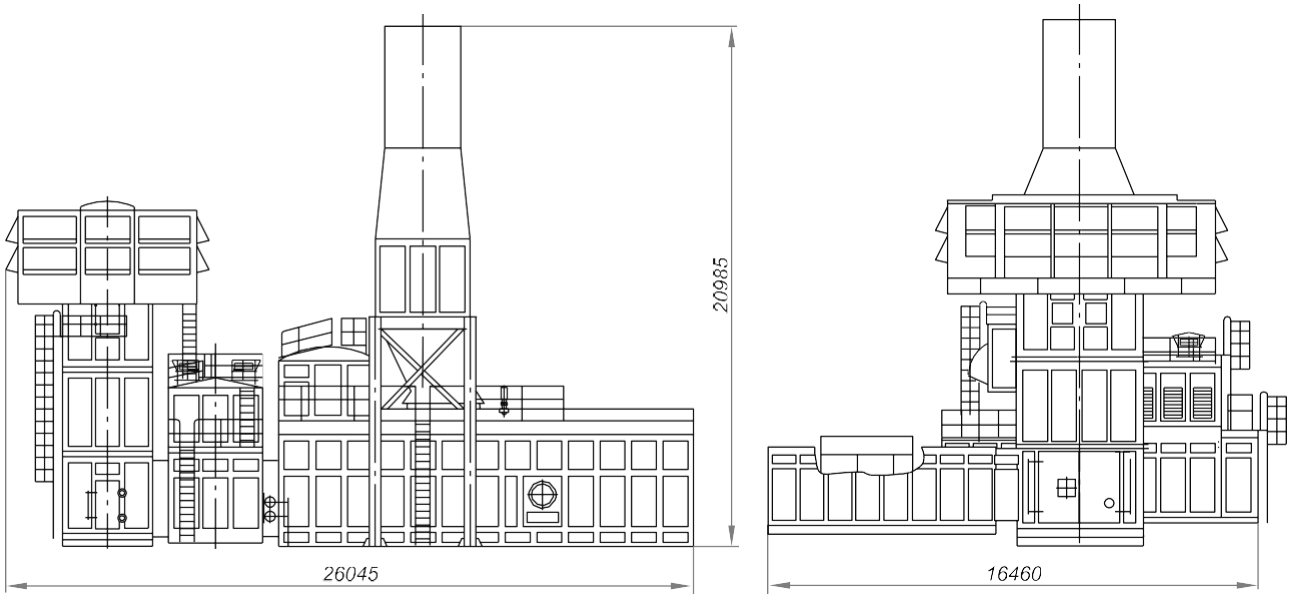


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	MMCMD	12.0
Suction pressure	kgf/cm^2	55.0
Discharge pressure	kgf/cm^2	76.0
Pressure ratio, design		1.37
Engine type	Gas-turbine AI-336-2-8	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	30.8
Compressor type	224GC2-130/56-76M12	
Unit weight (dry) in the scope of supply, max	kg	110000

Capacity limitations of AI-336-2-8 depending on air temperature at the engine's inlet

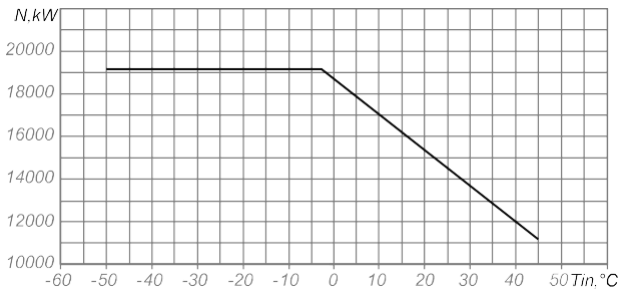


Gas Pumping Unit GPA-C1-16S/85-1.35M1

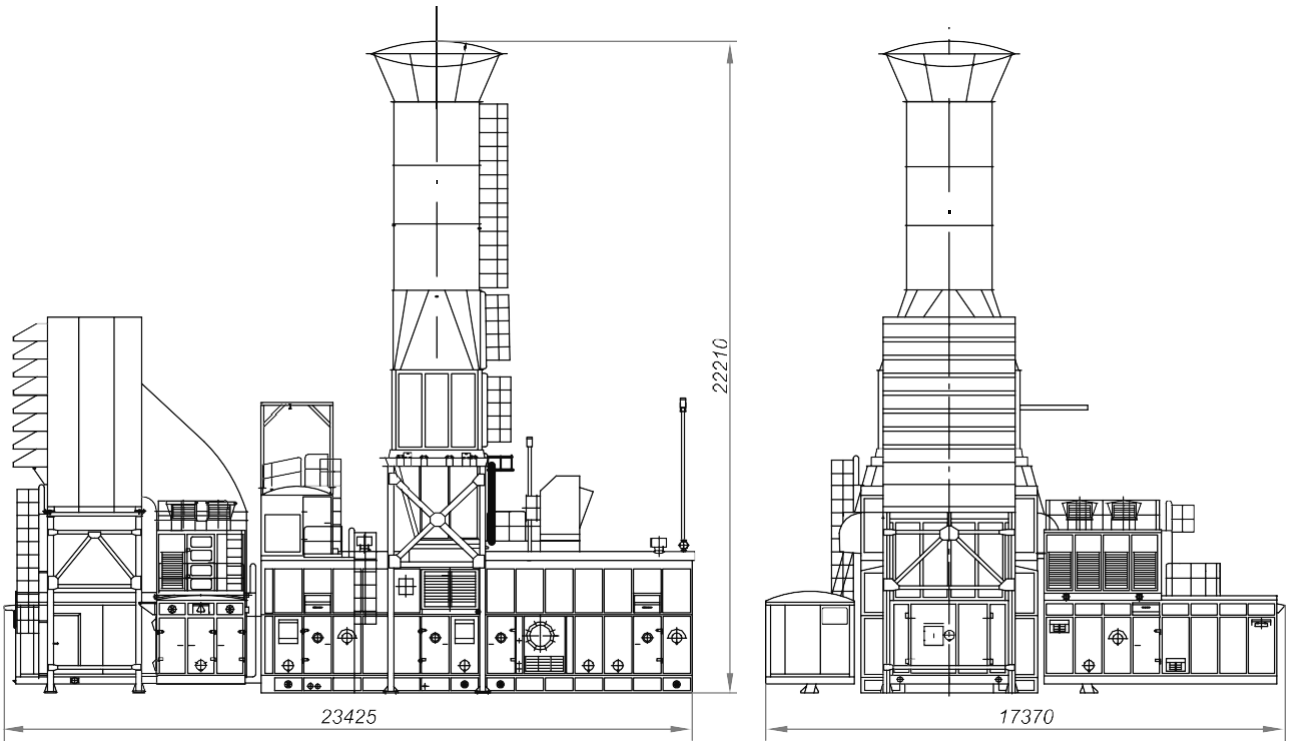


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	38.0
Suction pressure	kgf/cm^2	63.0
Discharge pressure	kgf/cm^2	85.0
Pressure ratio, design		1.35
Engine type	Gas-turbine DG90L2.1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	33.5
Compressor type	291GC2-385/63-85M1	
Unit weight (dry) in the scope of supply, max	kg	196400

Capacity limitations of DG90 depending on air temperature at the engine's inlet

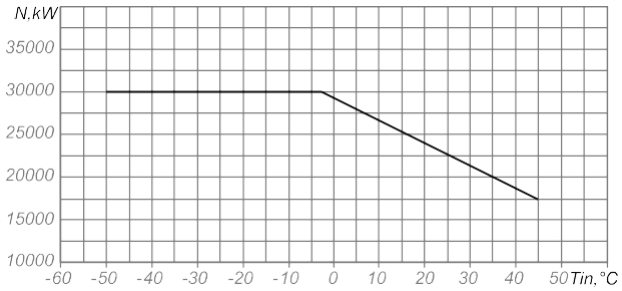


Gas Pumping Unit GPA-C1-25S/92-1.35M1

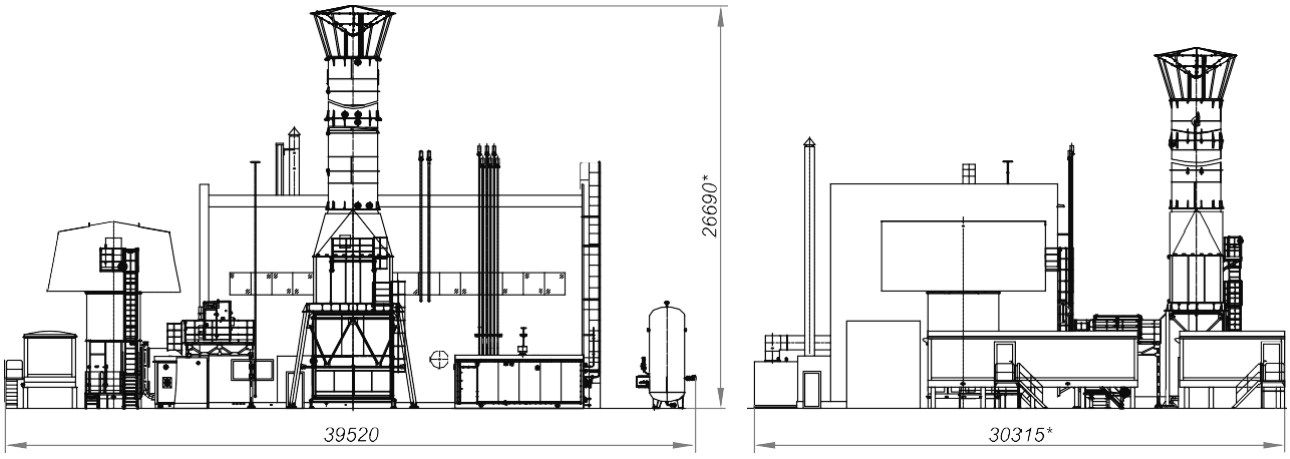


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	27.1
Suction pressure	kgf/cm^2	68.0
Discharge pressure	kgf/cm^2	92.0
Pressure ratio, design		1.364
Engine type	Gas-turbine DU80L1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	35.0
Compressor type	291GC2-286/68-92M1	
Unit weight (dry) in the scope of supply, max	kg	195000

Capacity limitations of DU80L1 depending on air temperature at the engine's inlet

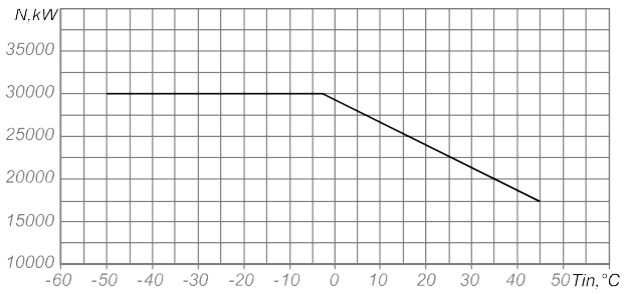


Gas Pumping Unit GPA-C-25SD/100-1.44M

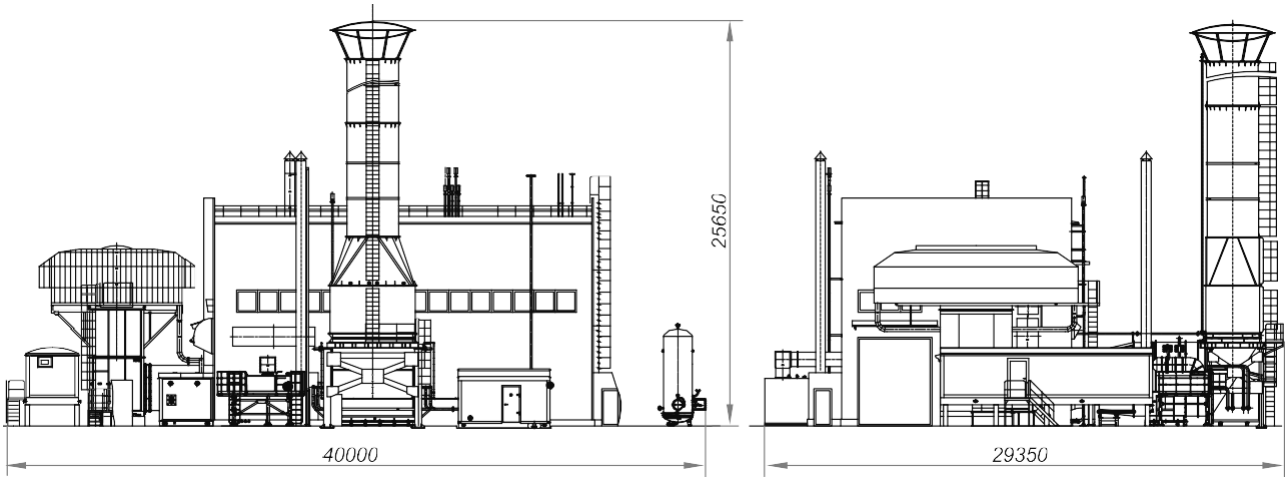


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	45.0
Suction pressure	kgf/cm^2	70.0
Discharge pressure	kgf/cm^2	100.0
Pressure ratio, design		1.44
Engine type	Gas-turbine DU80L1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	352GC2-395/70-100M	
Unit weight (dry) in the scope of supply, without shelter, max	kg	305000

Capacity limitations of DU80L1 depending on air temperature at the engine's inlet

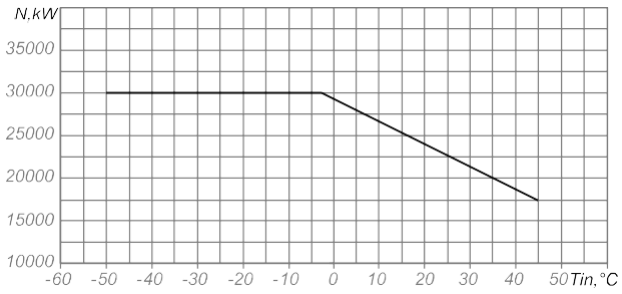


Gas Pumping Unit GPA-C-25SD/100-1.44M1

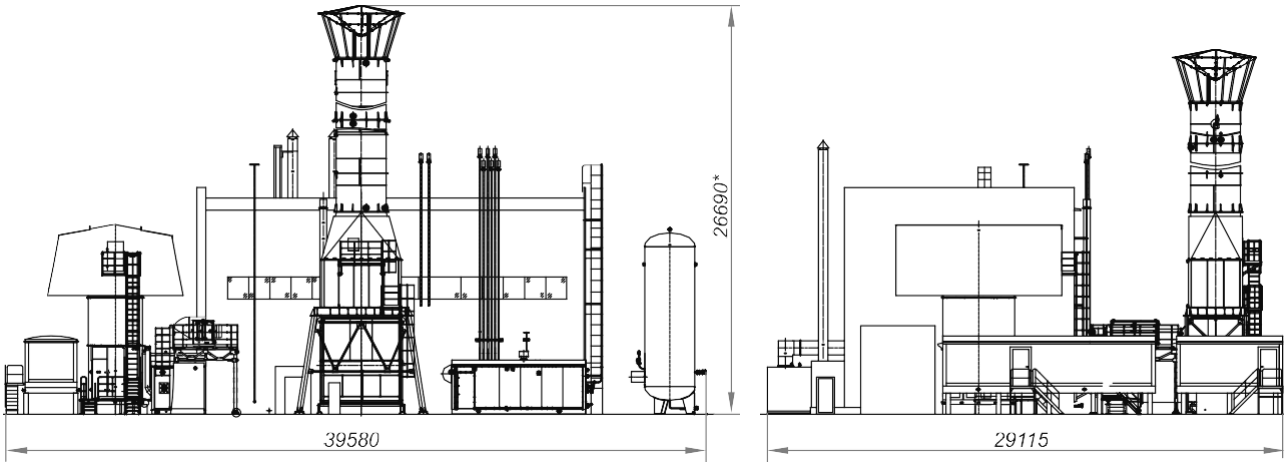


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	48.0
Suction pressure	kgf/cm^2	72.0
Discharge pressure	kgf/cm^2	100.0
Pressure ratio, design		1.44
Engine type	Gas-turbine DU80L1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	324GC2-420/75-105M1	
Unit weight (dry) in the scope of supply, without shelter, max	kg	290000

Capacity limitations of DU80L1 depending on air temperature at the engine's inlet

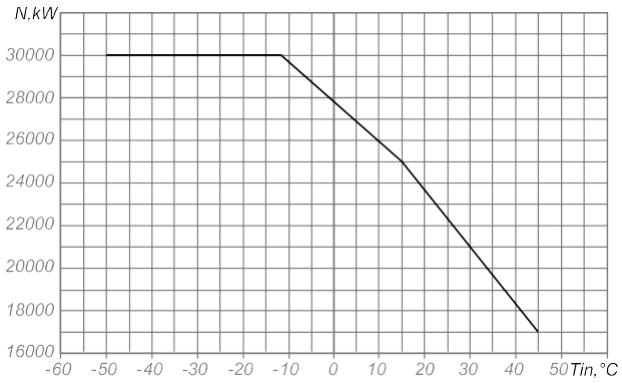


Gas Pumping Unit GPA-C-25SD/100-1.44M

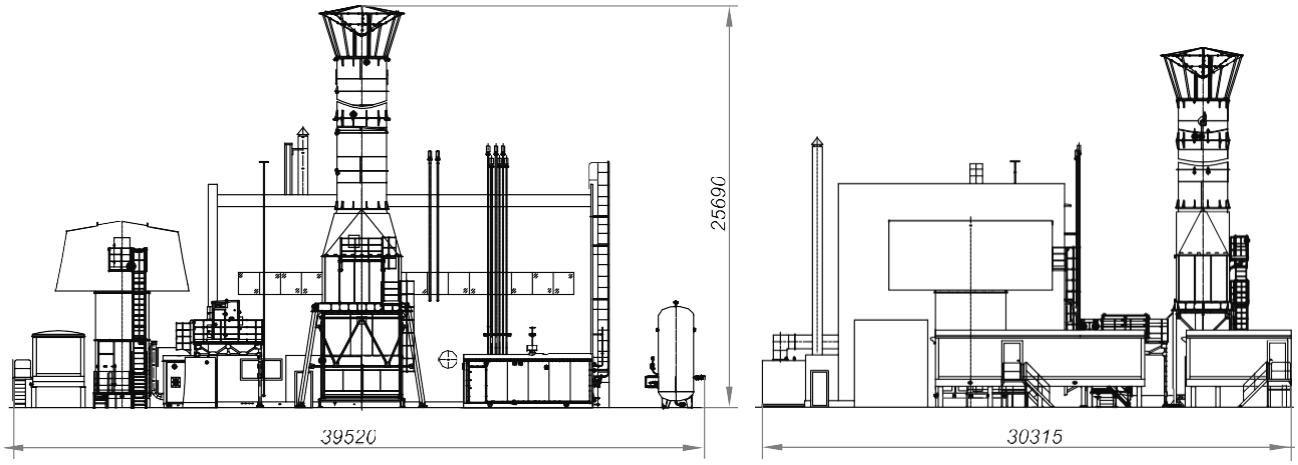


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	60.0
Suction pressure	kgf/cm^2	74.0
Discharge pressure	kgf/cm^2	100.0
Pressure ratio, design		1.35
Engine type	Gas-turbine NK-36ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.5
Compressor type	352GC2-485/75-100M	
Unit weight (dry) in the scope of supply, without shelter, max	kg	305000

Capacity limitations of NK-36ST depending on air temperature at the engine's inlet

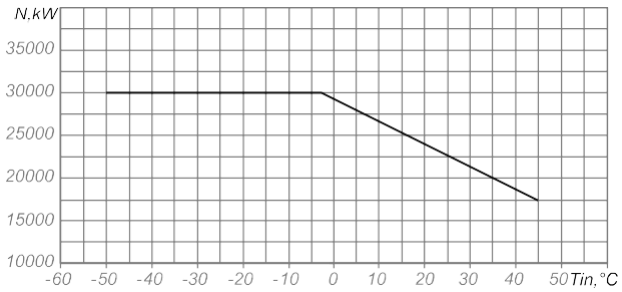


Gas Pumping Unit GPA-C-25SD/100-1.35M



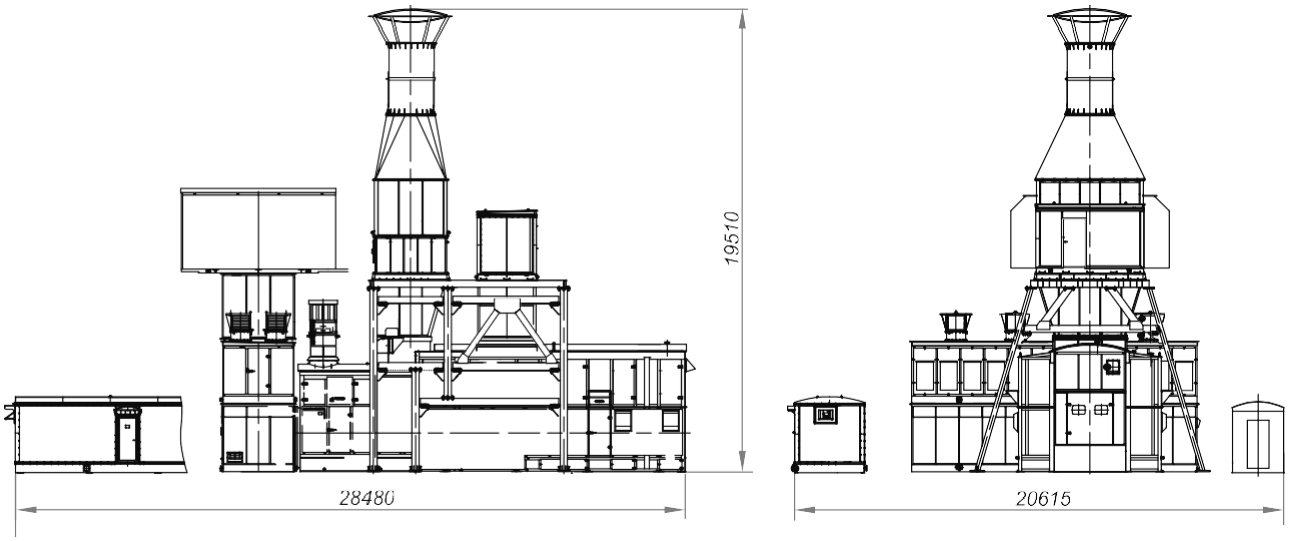
Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	60.0
Suction pressure	kgf/cm^2	74.0
Discharge pressure	kgf/cm^2	100.0
Pressure ratio, design		1.35
Engine type	Gas-turbine DU80L1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	352GC2-485/75-100M	
Unit weight (dry) in the scope of supply, without shelter, max	kg	305000

Capacity limitations of DU80L1 depending on air temperature at the engine's inlet



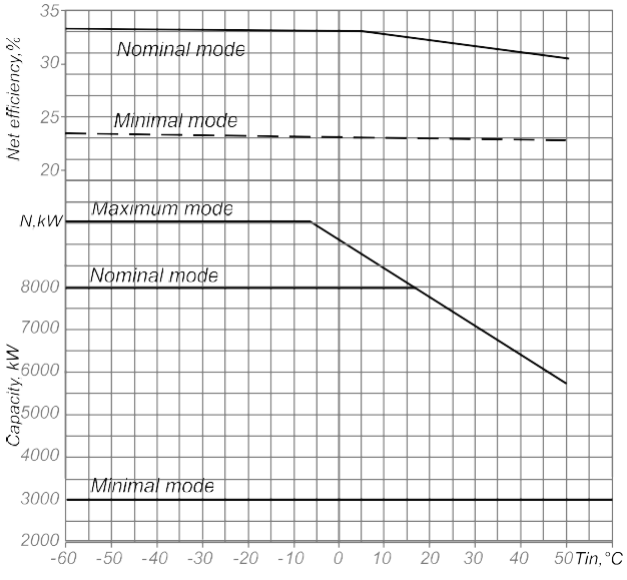
Turbo-Compressor Units

Turbo-Compressor Unit TKA-C-8/0.6-5.6M1



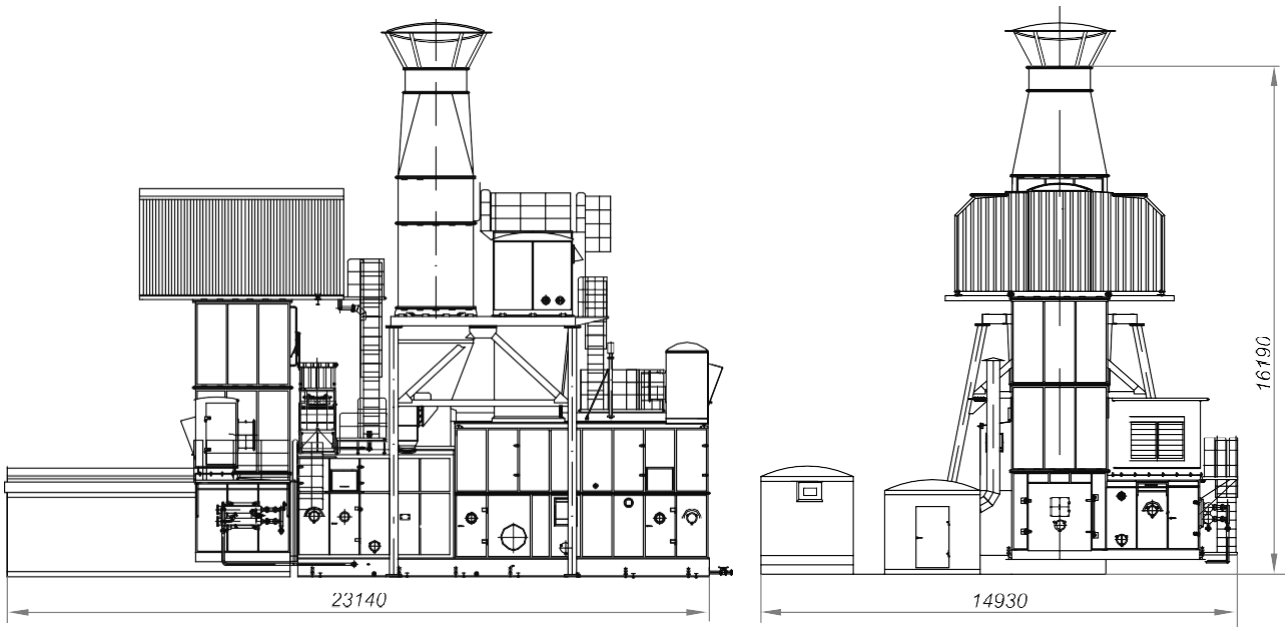
Technical parameters		
		«U.1»
	MMCMD	1 3
	MPa	0.16
	MPa	0.65
		5.6
Engine type	Gas-turbine AI-336-2-8	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
	rpm	
Compressor type	252GC1-630/1.6-3.8M1236 252GC1-360/2.8-6.7M123	
Unit weight (dry) in the scope of supply, max	kg	307966

Capacity limitations of AI-336-2-8 depending on air temperature at the engine's inlet



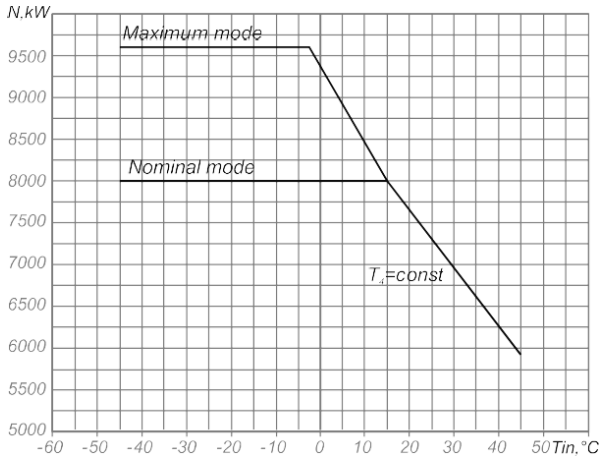
$P_н$=760 mm Hg, n_{cm}=8200 rpm

Turbo-refrigerating unit THA-C-8B/0.233-0.965

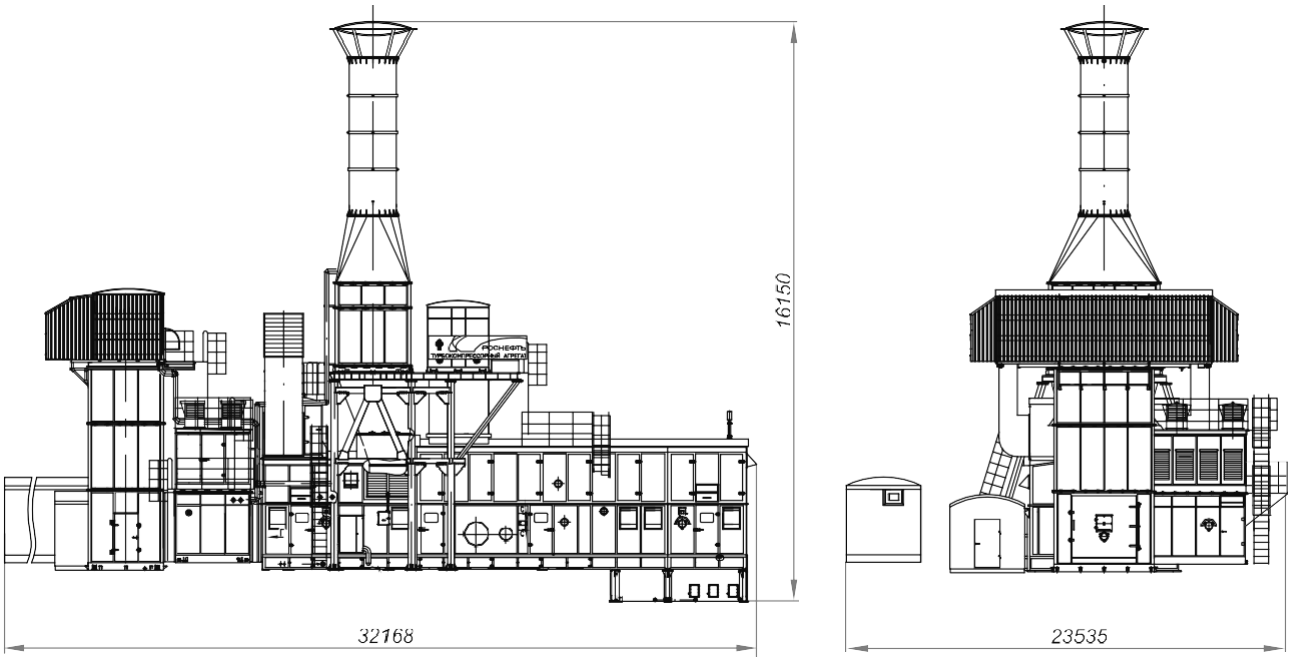


Technical parameters		
Climatic modification		«XL.1»
Flow rate capacity	MMCMD	2.48
Suction pressure	MPa	0.233
Discharge pressure	MPa	0.965
Pressure ratio, design		4.14
Engine type	Gas-turbine GTD-6.3RM/8	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	33
Compressor type	D203GC1-710/2.4-10M2	
Unit weight (dry) in the scope of supply, max	kg	176000

Capacity limitations of GTD-6.3RM/8 depending on air temperature at the engine's inlet

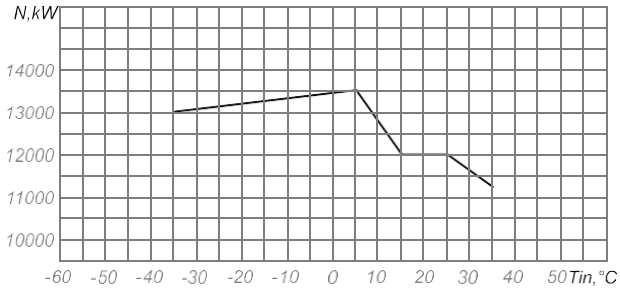


41 Turbo-Compressor Unit TKA-C-12P/0.2-4.7M1

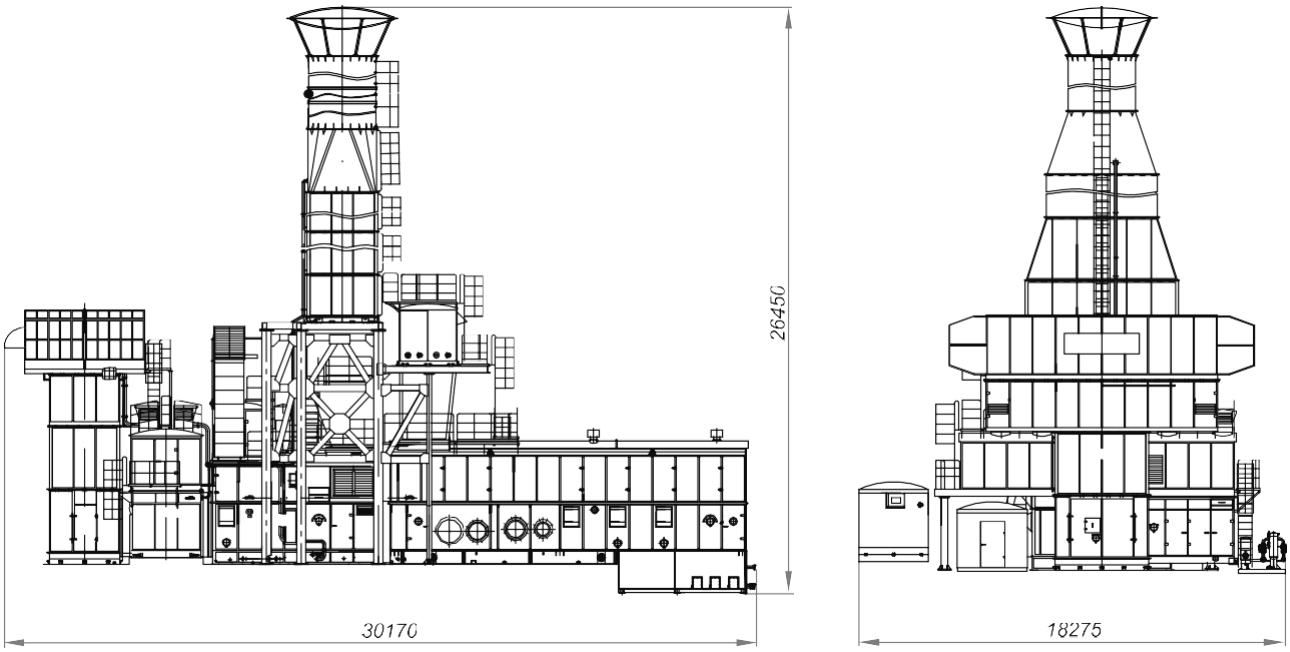


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	1.43
Suction pressure	MPa	0.2
Discharge pressure	MPa	4.7
Pressure ratio, design		23.78
Engine type	GTU-12P with PS-90GP-1 engine	
Nominal capacity at engine's coupling (under stationary conditions)	MW	12.0
Nominal rotation speed of power turbine rotor of the engine	rpm	6500
Efficiency (under stationary conditions)	%	34
Compressor type	D245GC2-148/7.3-47.5M1245 252GC1-540/2-9M126	
Unit weight (dry) in the scope of supply, max	kg	290000

Capacity limitations of PS-90GP-1 depending on air temperature at the engine's inlet

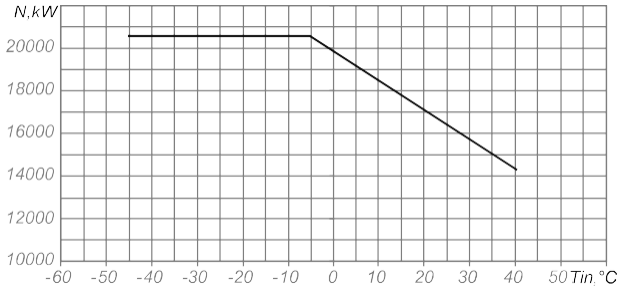


Turbo-Compressor Unit TKA-C-16/0.3-5.6M1

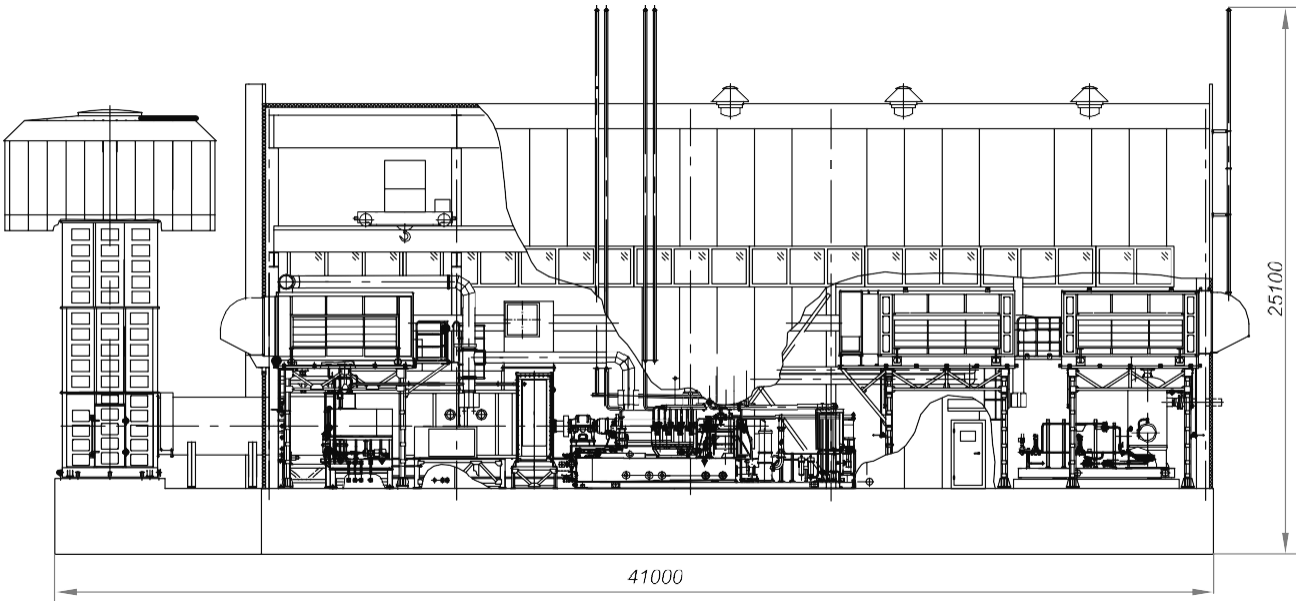


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	2.28
Suction pressure	MPa	0.3
Discharge pressure	MPa	5.6
Pressure ratio, design		18.67
Engine type	Gas-turbine NK-16-18STD	
Nominal capacity at engine's coupling (under stationary conditions)	MW	18.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	29.4
Compressor type	252GC1-600/3-7.5M126 223GC1-260/7-17.5M126 225GC2-105/17-56M124	
Unit weight (dry) in the scope of supply, max	kg	280000

Capacity limitations of NK-16-18STD depending on air temperature at the engine's inlet

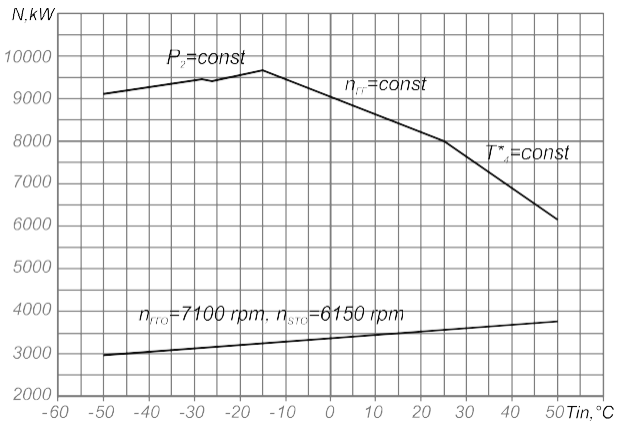


Turbo-Compressor Unit TKA-C-8BD/0.3-8.0

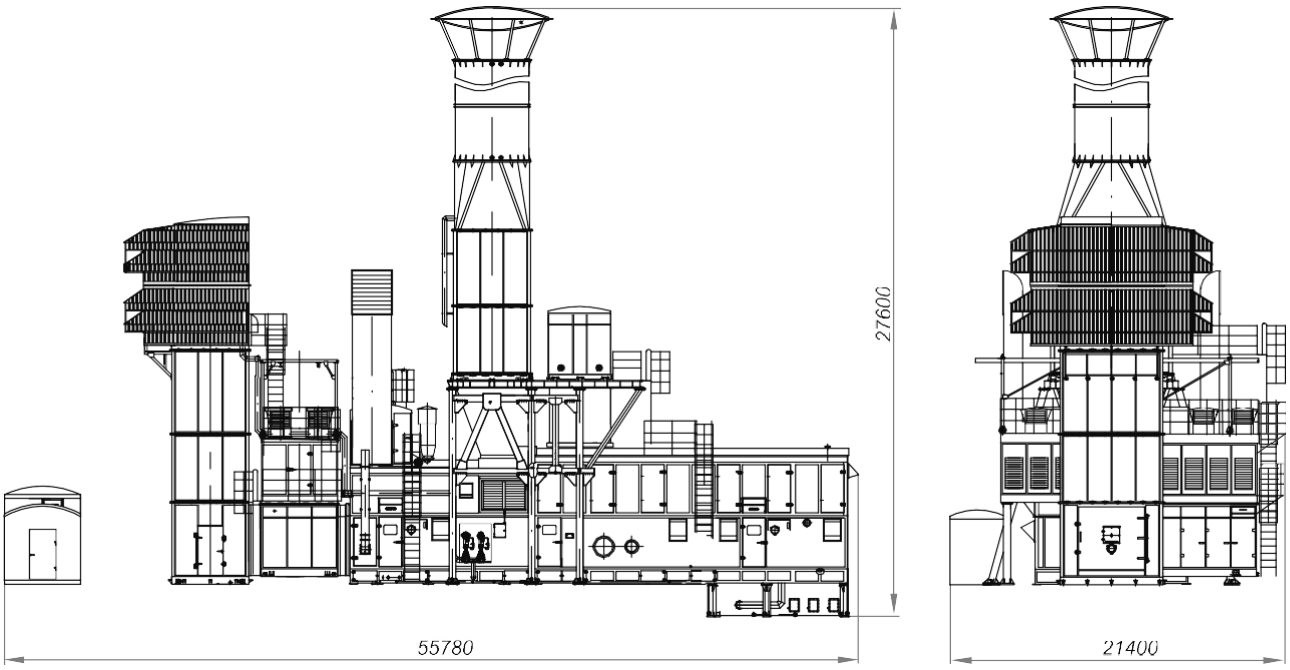


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	1.14
Suction pressure	MPa	0.3
Discharge pressure	MPa	8.0
Pressure ratio, design		27.2
Engine type	Gas-turbine NK-14ST-8	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	30
Compressor type	193GC1-260/3-12M56 223GC2-75/11.5-82M45	
Unit weight (dry) in the scope of supply, without shelter, max	kg	480000

Capacity limitations of NK-14ST-8 depending on air temperature at the engine's inlet

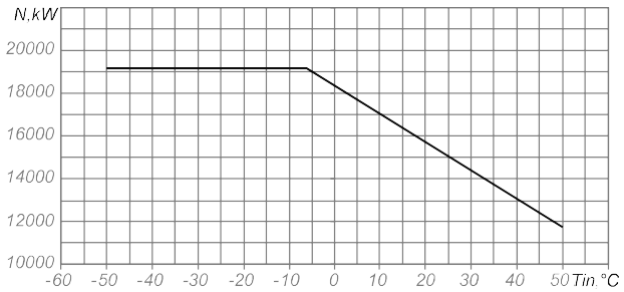


Turbo-Compressor Unit TKA-C-12/0.4-6.1M1

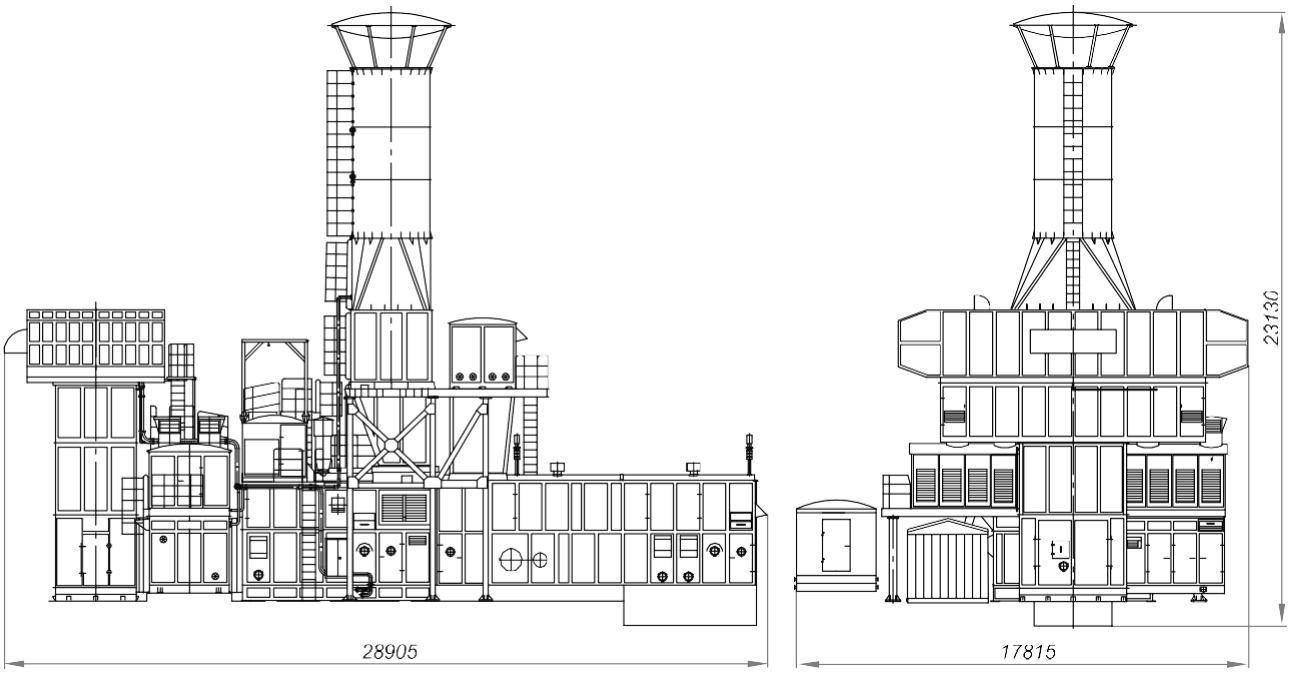


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	1.8
Suction pressure	MPa	0.4
Discharge pressure	MPa	6.1
Pressure ratio, design		15.21
Engine type	Gas-turbine NK-16STD	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	27.4
Compressor type	185GC2-78/17-62M14 193GC1-330/4-17M126	
Unit weight (dry) in the scope of supply, max	kg	300000

Capacity limitations of NK-16STD depending on air temperature at the engine's inlet

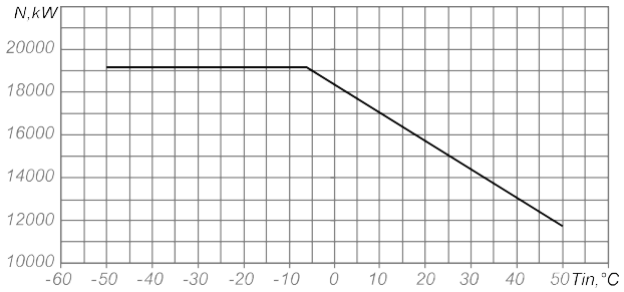


Turbo-Compressor Unit TKA-C-16/4.0-76

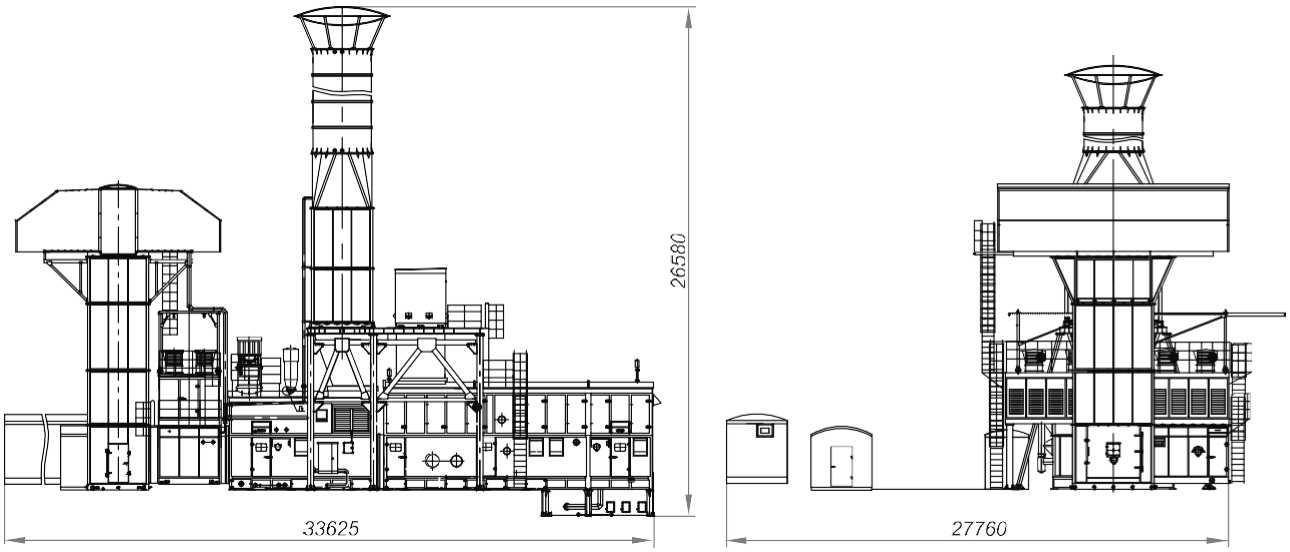


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	2.0
Suction pressure	MPa	0.45
Discharge pressure	MPa	7.6
Pressure ratio, design		16.8
Engine type	Gas-turbine NK-16ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	27.5
Compressor type	193GC1-320/4.6-21 223GC2-73/20.5-76	
Unit weight (dry) in the scope of supply, max	kg	232500

Capacity limitations of NK-16ST depending on air temperature at the engine's inlet

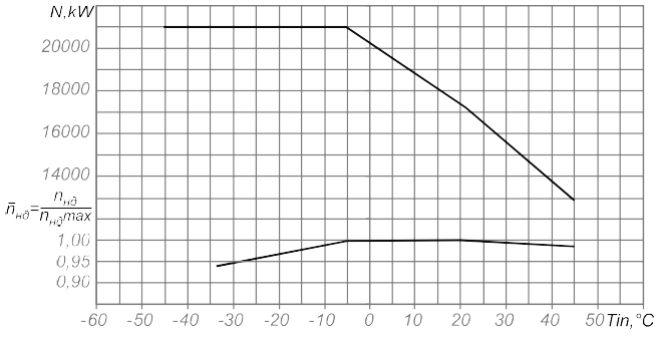


Turbo-Compressor Unit TKA-C-18/4.0-77.5M1

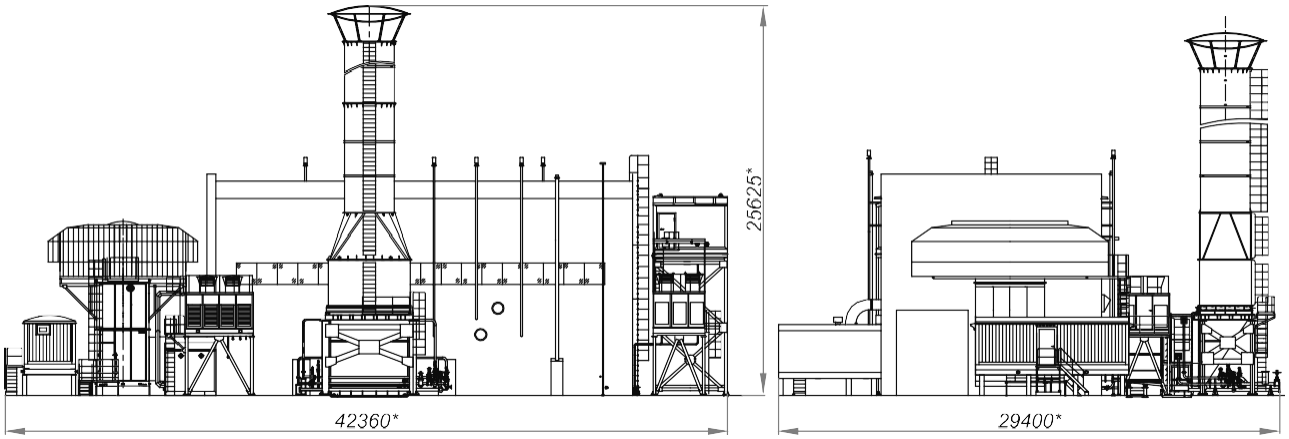


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	млн.ст.м³/day	2.3
Suction pressure	MPa	0.5
Discharge pressure	MPa	7.7
Pressure ratio, design		15.4
Engine type	Gas-turbine NK-16-18STD	
Nominal capacity at engine's coupling (under stationary conditions)	MW	18.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	29.4
Compressor type	252GC1-350/5-16.5M1236 D245GC2-112/15.5-78M1245	
Unit weight (dry) in the scope of supply, max	kg	344296

Capacity limitations of NK-16-18STD depending on air temperature at the engine's inlet

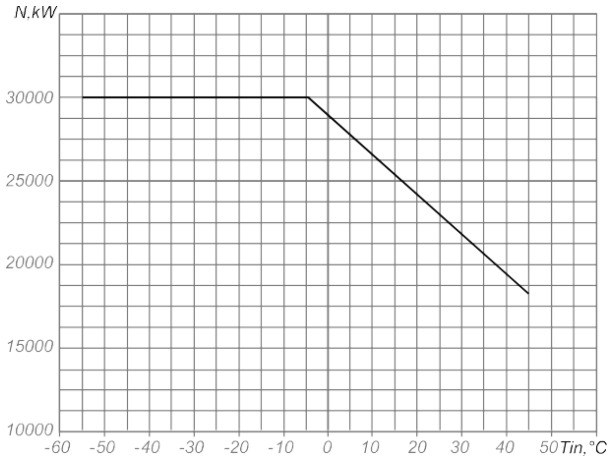


Turbo-Compressor Unit TKA-C-25SD/0.6-5.5M1

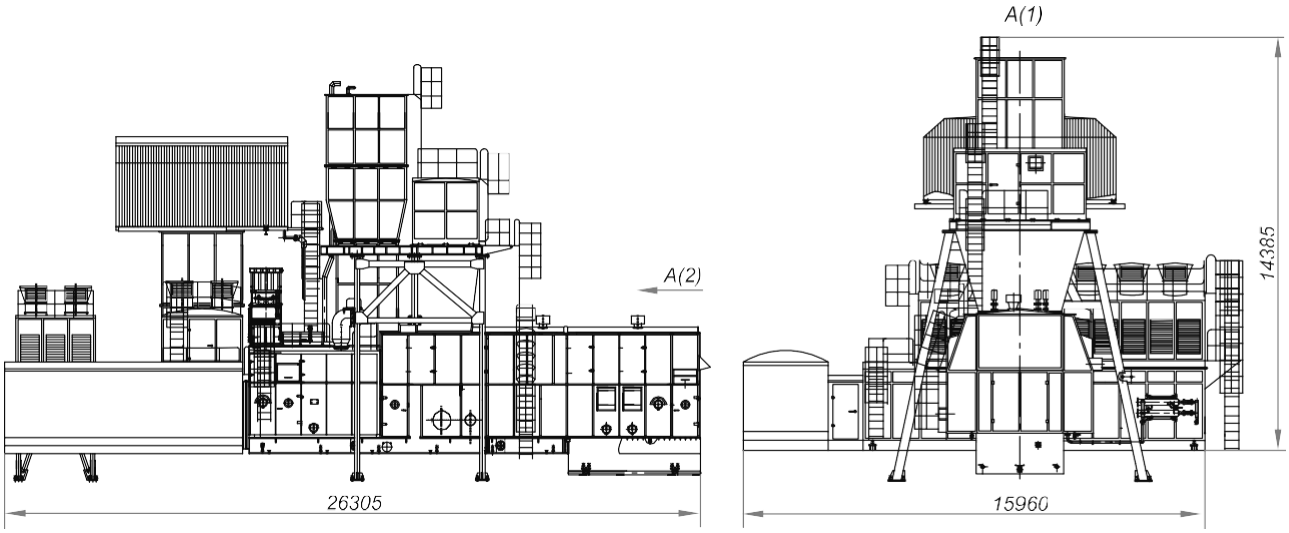


Technical parameters		
Climatic modification:		
for indoors equipment		«UHL.4»
for outdoors equipment		«UHL.1»
Flow rate capacity	MMCMD	5.4
Suction pressure	MPa	0.6
Discharge pressure	MPa	5.5
Pressure ratio, design		9.5
Engine type	Gas-turbine DU80L1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	C325GC2-650/6-56M12	
Unit weight (dry) in the scope of supply, max	kg	310000

Capacity limitations of DU80L1 depending on air temperature at the engine's inlet

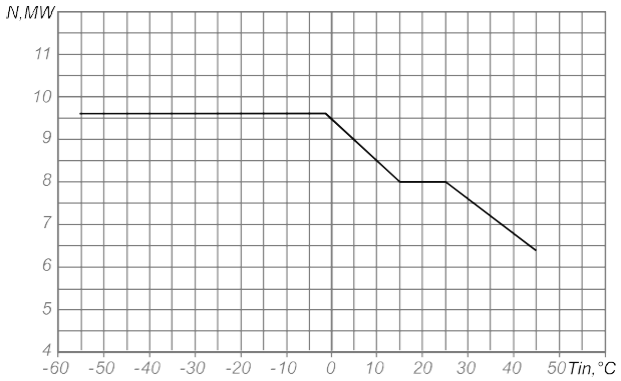


Turbo-Compressor Unit TKA-C-8S/1.0-4.6

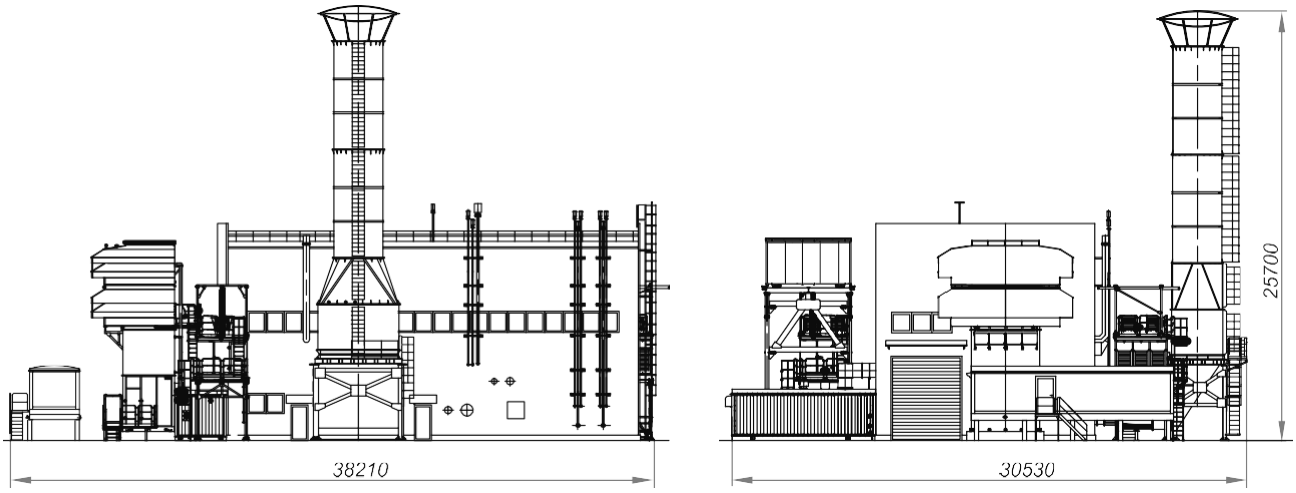


Technical parameters		
		«UHL.4»
	MMCMD	1.58
	MPa	1.0
	MPa	4.6
		4.6
Engine type	Gas-turbine DT70P1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.0
	rpm	8200
	%	32.45
Compressor type	193GC1-200/6-19M6 185GC2-68/18-46M45	
Unit weight (dry) in the scope of supply, max	kg	171425

Capacity limitations of DT70P1 depending on air temperature at the engine's inlet

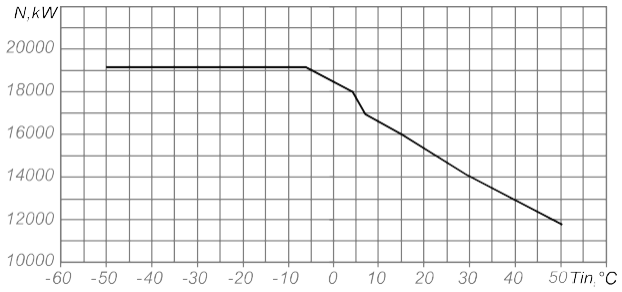


Turbo-Compressor Unit TKA-C-16.0D/3.2-8.1M1

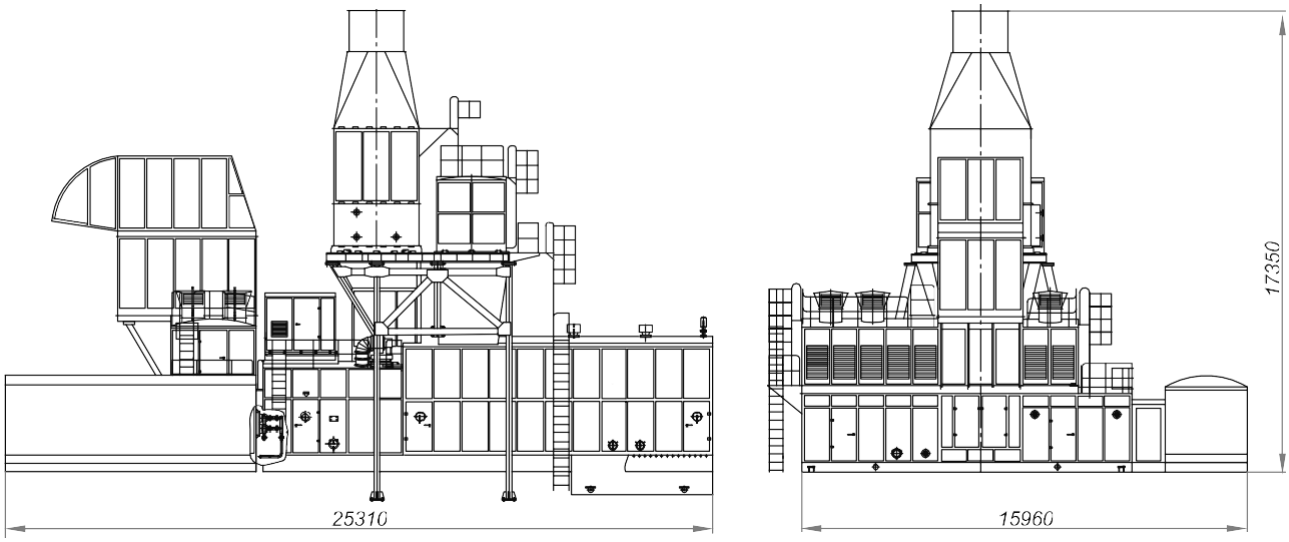


Technical parameters		
Climatic modification		«U.1»
Flow rate capacity	MMCMD	1.52
Suction pressure	MPa	0.97
Discharge pressure	MPa	8.15
Pressure ratio, design		8.1
Engine type	Gas-turbine NK-16ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5350
Efficiency (under stationary conditions)	%	27.4
Compressor type	194GC1-115/10-30M12356 185GC2-42/29-82M12345	
Unit weight (dry) in the scope of supply, max	kg	191021

Capacity limitations of NK-16ST depending on air temperature at the engine's inlet

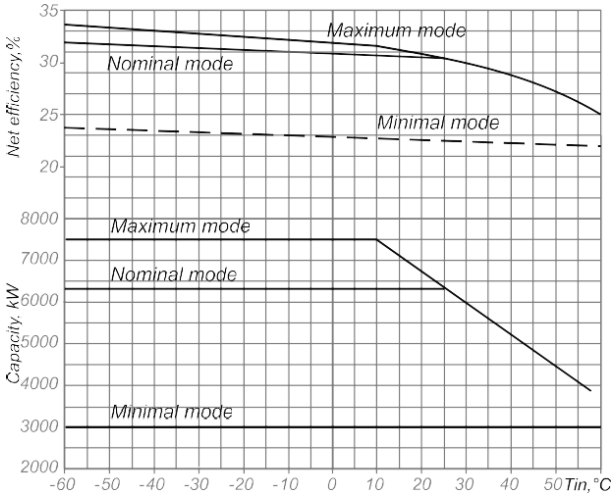


Turbo-Compressor Unit TKA-C-6.3A/1.75-7.6

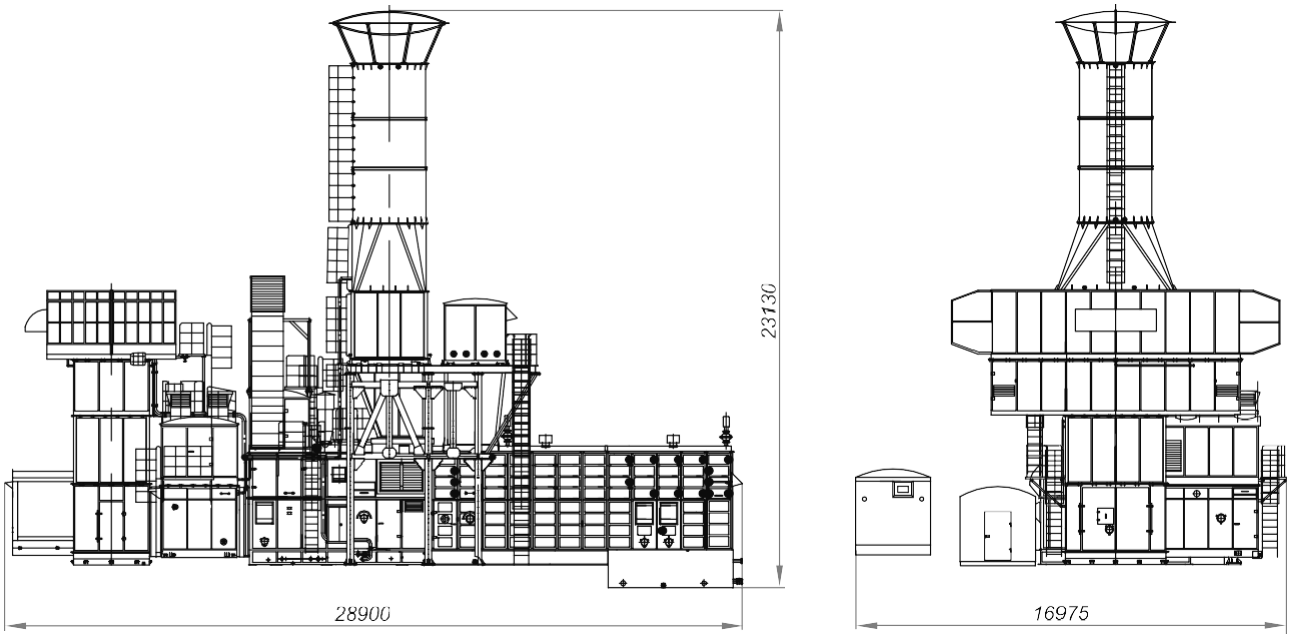


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	1.65
Suction pressure	MPa	1.75
Discharge pressure	MPa	7.6
Pressure ratio, design		4.364
Engine type	Gas-turbine D-336-2T	
Nominal capacity at engine's coupling (under stationary conditions)	MW	6.3
Nominal rotation speed of power turbine rotor of the engine	rpm	8200
Efficiency (under stationary conditions)	%	30
Compressor type	183GC2-64/18-78M45	
Unit weight (dry) in the scope of supply, max	kg	182000

Capacity limitations of D-336-2T depending on air temperature at the engine's inlet

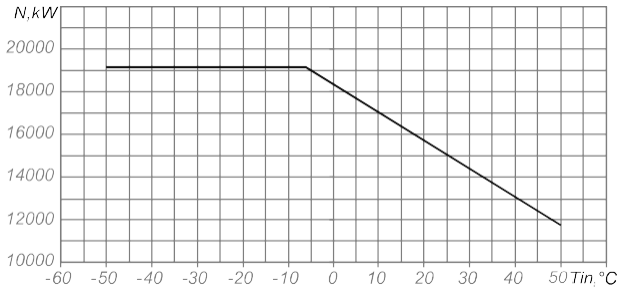


Turbo-Compressor Unit TKA-C-16/2.1-7.9M1

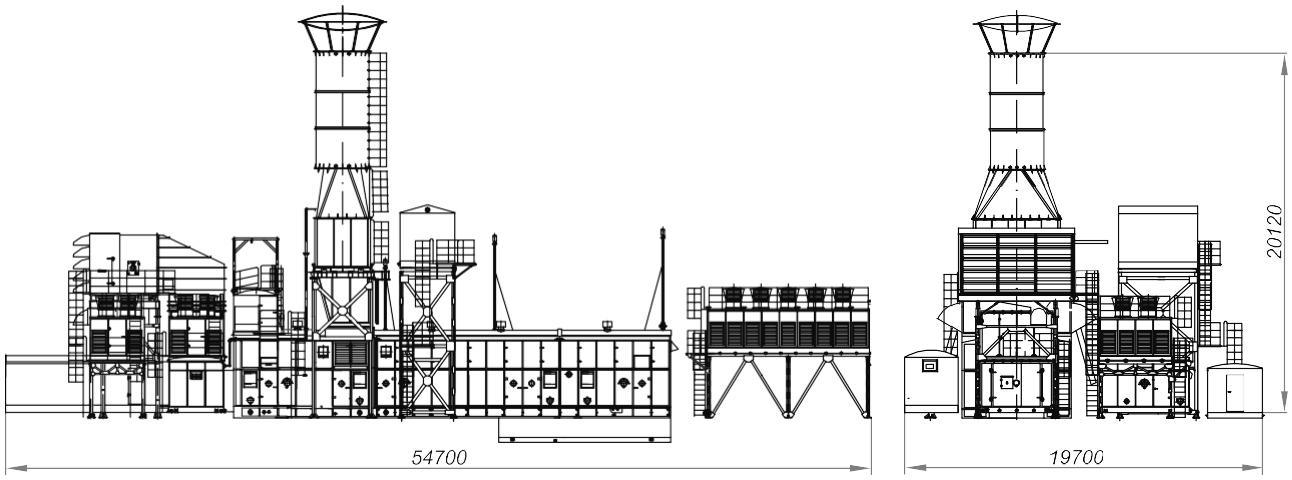


Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	3.48
Suction pressure	MPa	2.1
Discharge pressure	MPa	7.9
Pressure ratio, design		3.76
Engine type	Gas-turbine NK-16ST	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5300
Efficiency (under stationary conditions)	%	27.5
Compressor type	225GC2-125/21-80M124	
Unit weight (dry) in the scope of supply, max	kg	249000

Capacity limitations of NK-16ST depending on air temperature at the engine's inlet

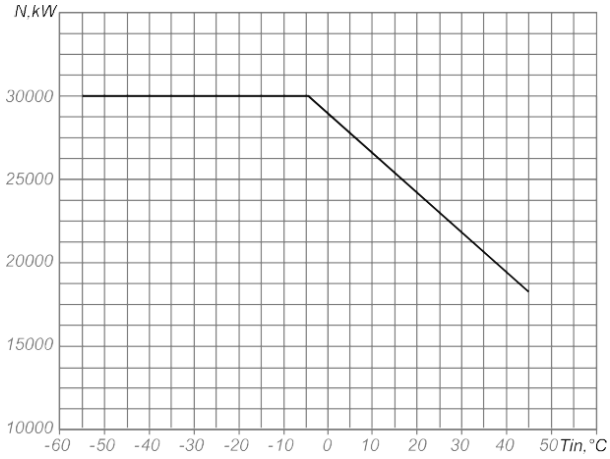


Turbo-Compressor Unit TKA-C-25S/4.2-29.7M1

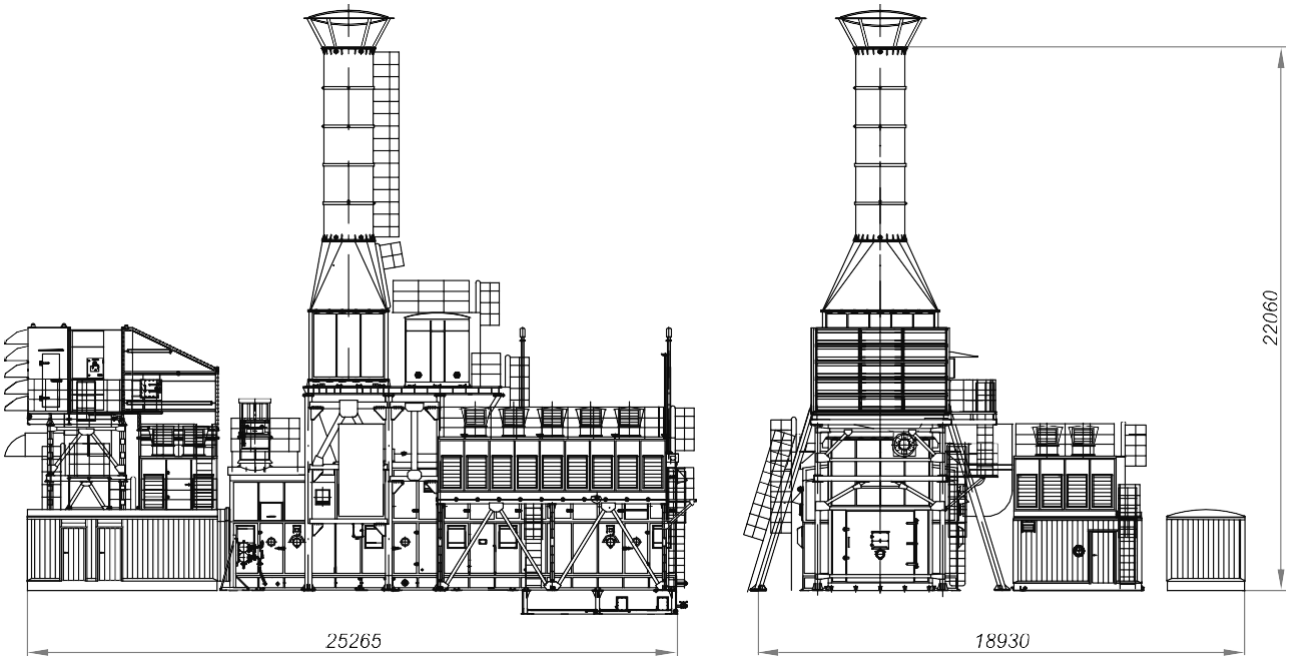


Technical parameters		
Climatic modification		«T.1»
Flow rate capacity	MMCMD	3.64
Suction pressure	MPa	4.2
Discharge pressure	MPa	29.7
Pressure ratio, design		7.02
Engine type	Gas-turbine DU80L	
Nominal capacity at engine's coupling (under stationary conditions)	MW	25.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5000
Efficiency (under stationary conditions)	%	34.8
Compressor type	C153GC2-21/125-300M125 184GC2-60/43-125M1256	
Unit weight (dry) in the scope of supply, max	kg	195000

Capacity limitations of DU80L depending on air temperature at the engine's inlet

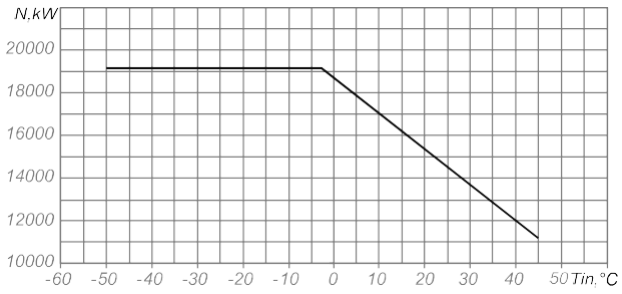


Turbo-Compressor Unit TKA-C-16S/6.5-15.3M1



Technical parameters		
Climatic modification		«T.1»
Flow rate capacity	MMCMD	6.23
Suction pressure	MPa	6.5
Discharge pressure	MPa	15.3
Pressure ratio, design		2.36
Engine type	Gas-turbine DG90L2.1	
Nominal capacity at engine's coupling (under stationary conditions)	MW	16.0
Nominal rotation speed of power turbine rotor of the engine	rpm	5200
Efficiency (under stationary conditions)	%	33.5
Compressor type	154GC2-63/65-155M124	
Unit weight (dry) in the scope of supply, max	kg	245000

Capacity limitations of DG90 depending on air temperature at the engine's inlet



Electrically Driven Gas Pumping Units

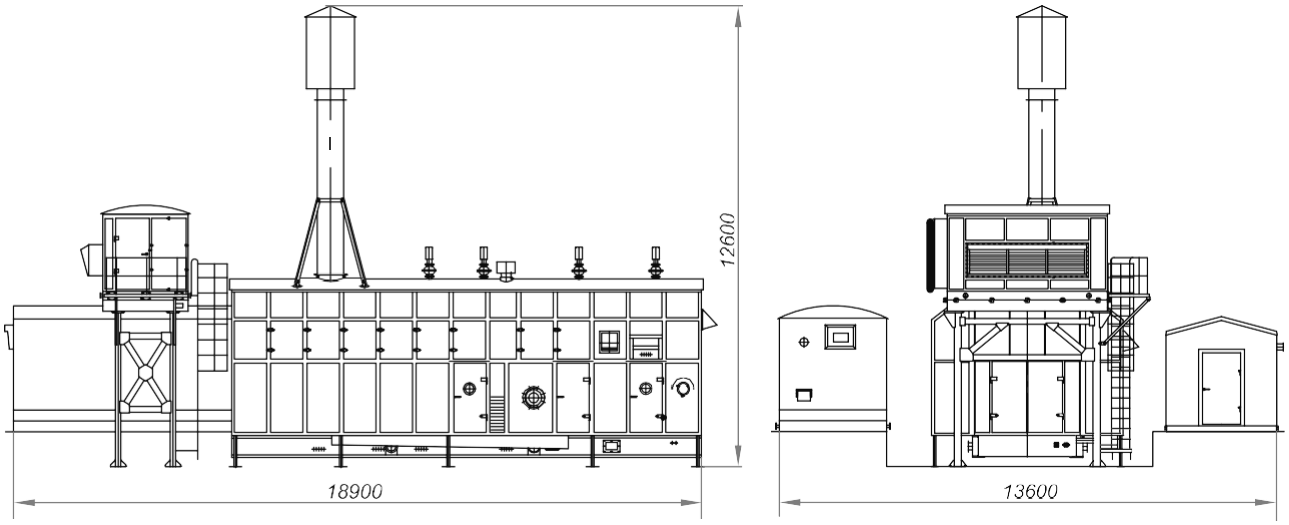
No.	Suction Pressure kgf/cm^2	Discharge Pressure kgf/cm^2	Flow Rate Capacity MMCMD	Recommended EGPA	Catalogue page No.
1	5.84	11.0	0.535	EGPA-C-1.0/11-1.92M1	56

Electrically driven gas pumping unit identification legend

For example: **EGPA-C-1.0/11-1.92M1**

EGPA - electrically driven gas pumping unit;
C - the unit includes a centrifugal compressor:
C1…C5 - modifications of compressor rotor bundles;
1.0 - driver engine capacity, MW;
11 - compressor discharge pressure, kgf/cm^2;
1.92 - pressure ratio;
M1 - compressor design:
M - with magnetic suspension of rotor a and dry gas seal (“dopeless” compressor));
M1 - cwith oil bearings and a dry gas seal.

Electrically Driven Gas Pumping Unit EGPA-C-1.0/11-1.92M1



Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	0.535
Suction pressure	MPa	0.573
Discharge pressure	MPa	1.18
Pressure ratio, design		2.06
Engine type	Electric motor BAO4-560LB-2	
Nominal capacity at engine's coupling (under stationary conditions)	MW	1.0
Nominal rotation speed of power turbine rotor of the engine	rpm	3000
Efficiency (under stationary conditions)	%	95.9
Linear voltage	V	6000
Compressor type	224GC2-72/6-12M1	
Unit weight (dry) in the scope of supply, max	kg	80000

Electrically Driven Compressor Units

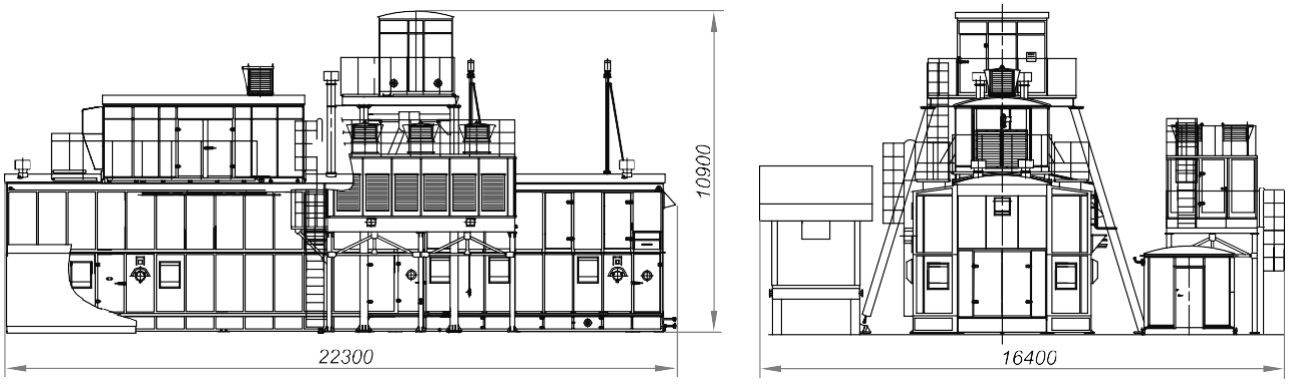
No.	Suction Pressure kgf/cm^2	Discharge Pressure kgf/cm^2	Flow Rate Capacity MMCMD	Recommended EKA	Catalogue page No.
1	12.0	49.0	2.16	EKA-C-8/12-49M1	59
2	20.0	40.8	4.56	EKA-C-8/20-40M1	60
3	32.04	73.29	3.31	EKA-C-6.0/32-73M1	61
4	35.0	74.0	2.12	EKA-C-3.35/35-74M1	62
5	40.06	76.15	5.51	EKA-C-8/40-76M1	63

Electrically driven compressor units identification legend

For example: **EKA-C-8/12-49M1**

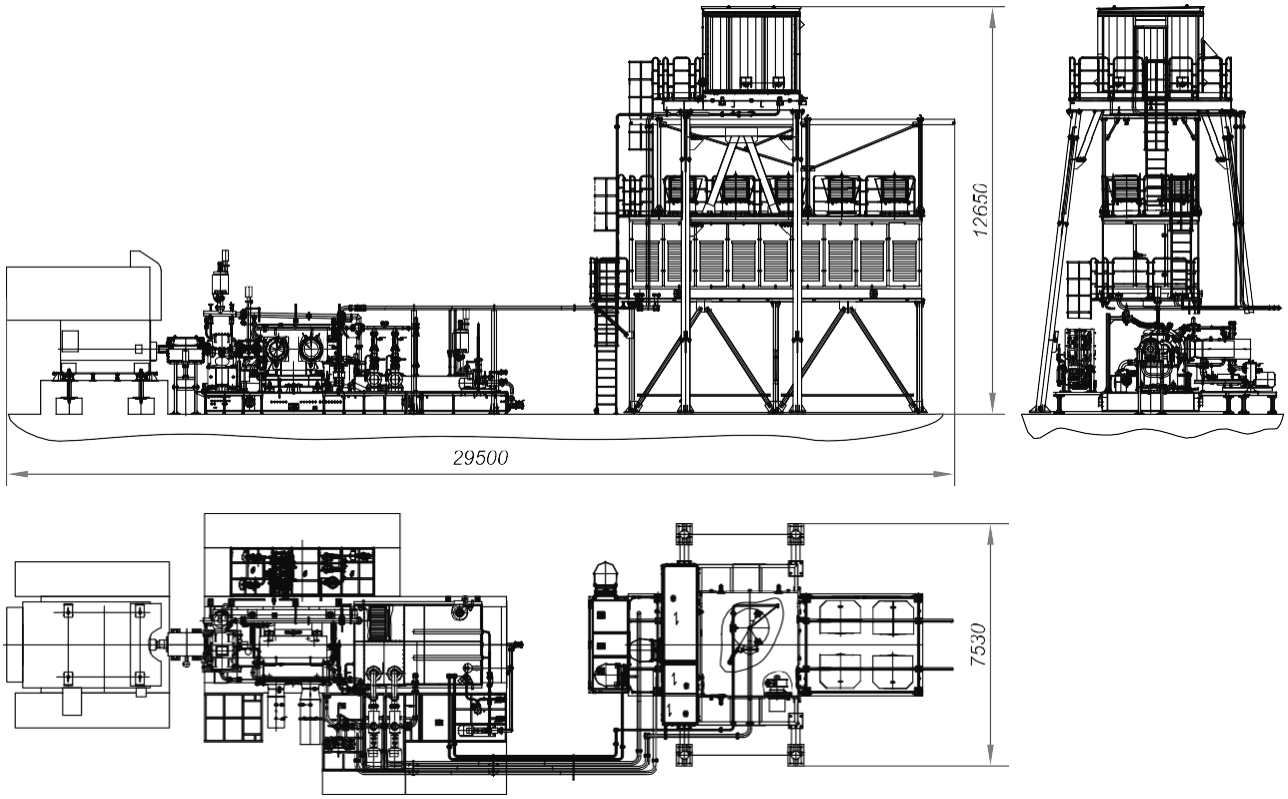
EKA - electrically driven compressor unit;
C - the unit includes a centrifugal compressor;
8 - driver engine capacity, MW;
12 - suction pressure, kgf/cm^2;
49 - discharge pressure, kgf/cm^2;
M1 - compressor design:
M - with magnetic suspension of rotor a and dry gas seal (“dopeless” compressor);
M1 - with oil bearings and a dry gas seal.

Electrically Driven Compressor Unit EKA-C-8/12-49M1



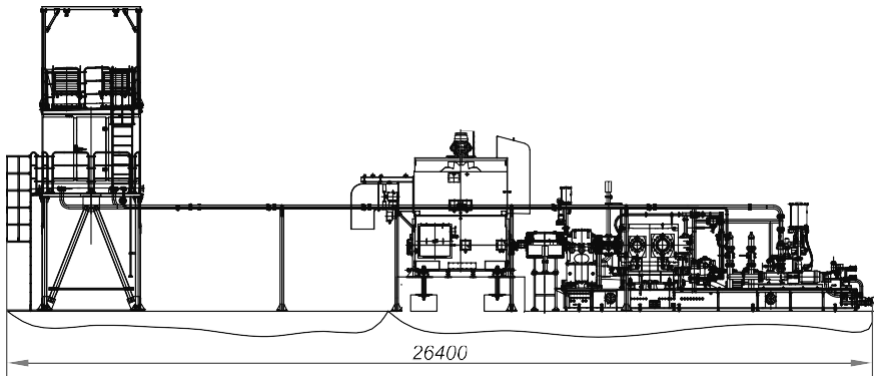
Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	2.16
Suction pressure	MPa	1.2
Discharge pressure	MPa	4.95
Pressure ratio, design		4.125
Engine type	Electric motor STD-8000-2RBUHL4	
Nominal capacity at engine's coupling (under stationary conditions)	MW	1.0
Nominal rotation speed of power power turbine rotor of the engine	rpm	3000
Motor efficiency	%	97.9
Linear voltage	V	6000
Compressor type	225GC2-135/12-50M1245	
Unit weight (dry) in the scope of supply, max	kg	180000

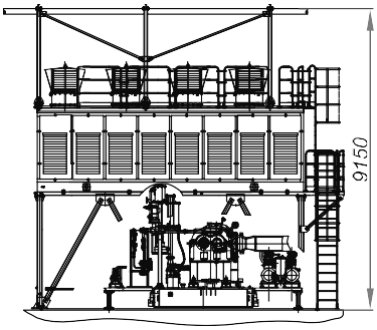
Electrically Driven Compressor Unit EKA-C-8/20-40M1

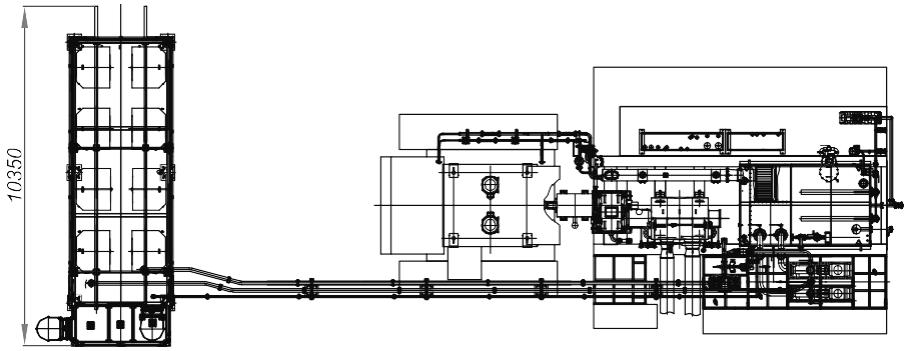


Technical parameters		
Climatic modification		TV2
Flow rate capacity	MMCMD	4.56
Suction pressure	MPa	1.96
Discharge pressure	MPa	4.0
Pressure ratio, design		2.04
Engine type	Electric motor YZKK800-2 8120kW OUTLINE	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.12
Nominal rotation speed of power turbine rotor of the engine	rpm	3000
Motor efficiency	%	97
Linear voltage	V	11000
Compressor type	224GC2-220/19.5-40M12345	
Unit weight (dry) in the scope of supply, max	kg	84375

Electrically Driven Compressor Unit EKA-C-6.0/32-73M1

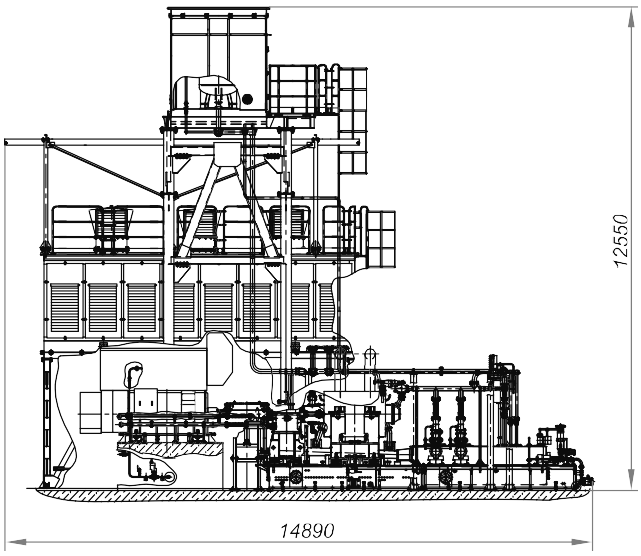


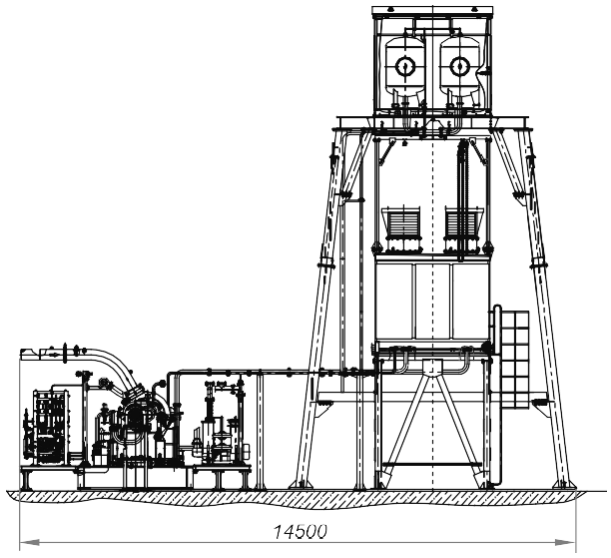




Technical parameters		
Climatic modification		TV2
Flow rate capacity	MMCMD	3.31
Suction pressure	MPa	3.14
Discharge pressure	MPa	7.19
Pressure ratio, design		2.29
Engine type	Electric motor YZKK800-2 6000kW OUTLINE	
Nominal capacity at engine's coupling (under stationary conditions)	MW	6.0
Nominal rotation speed of power turbine rotor of the engine	rpm	3000
Motor efficiency	%	96.8
Linear voltage		11
Compressor type		
Unit weight (dry) in the scope of supply, max	kg	68365

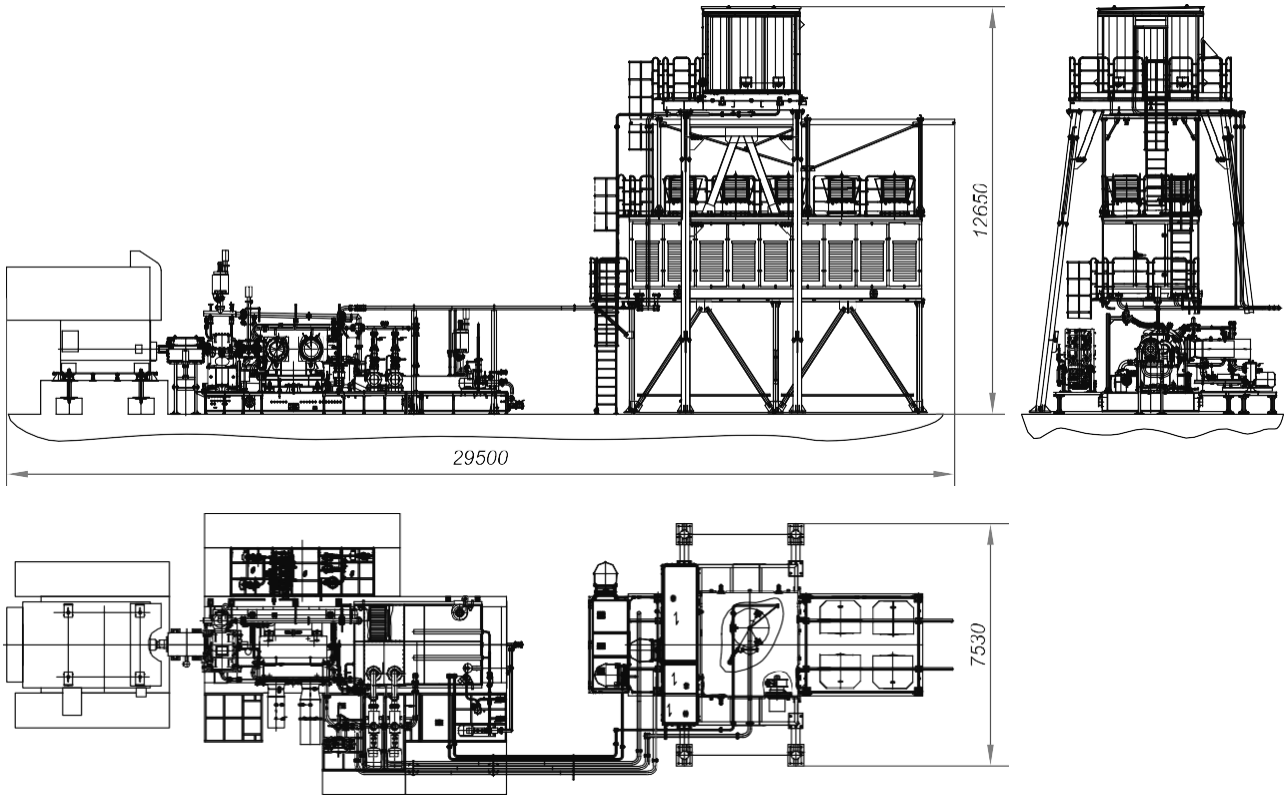
Electrically Driven Compressor Unit EKA-C-3.35/35-74M1





Technical parameters		
Climatic modification		«UHL.1»
Flow rate capacity	MMCMD	2.119
Suction pressure	MPa	3.45
Discharge pressure	MPa	7.34
Pressure ratio, design		2.128
Engine type	Electric motor LT MODEL, 2P, FR560 3350kW "HYOSUNG"	
Nominal capacity at engine's coupling (under stationary conditions)	MW	3.35
Nominal rotation speed of power turbine rotor of the engine	rpm	2960
Motor efficiency	%	96.1
Linear voltage	V	6000
Compressor type	184GC2-41/35-75M124	
Unit weight (dry) in the scope of supply, max	kg	82000

Electrically Driven Compressor Unit EKA-C-8/40-76M1



Technical parameters		
Climatic modification		TV2
Flow rate capacity	MMCMD	5.51
Suction pressure	MPa	3.93
Discharge pressure	MPa	7.47
Pressure ratio, design		1.9
Engine type	Electric motor YZKK800-2 8120kW OUTLINE	
Nominal capacity at engine's coupling (under stationary conditions)	MW	8.12
Nominal rotation speed of power turbine rotor of the engine	rpm	3000
Motor efficiency	%	97
Linear voltage	V	11000
Compressor type	202GC2-115/40-75M12345	
Unit weight (dry) in the scope of supply, max	kg	84375

No.	Suction Pressure kgf/cm^2	Discharge Pressure kgf/cm^2	Flow Rate Capacity MMCMD	Recommended compressor	Catalogue page No.
1	2.0	9.0	1.43	252GC1-540/2-9M126	69
2	2.4	10.0	2.48	D203GC1-710/2.4-10M2	70
3	3.0	12.0	1.14	193GC1-260/3-12M56	71
4	3.0	7.5	2.28	252GC1-600/3-7.5M126	72
5	4.0	17.0	1.68	193GC1-330/4-17M126	73
6	4.6	21.3	2.00	193GC1-320/4.6-21	74
7	5.1	20.4	3.29	294GC2-450/5-20M125	75
8	5.1	16.5	2.30	252GC1-350/5-16.5M1236	76
9	5.8	12.0	0.54	224GC2-72/6-12M1	77
10	6.0	19.2	1.58	193GC1-200/6-19M6	78
11	6.0	56.0	5.40	S325GC2-650/6-56M12	79
12	6.1	14.3	3.33	224GC2-375/6-14A	81
13	7.0	21.0	8.30	295GC2-800/7-21	82
14	7.0	17.5	2.28	223GC1-260/7-17.5M126	83
15	7.3	47.5	1.43	D245GC2-148/7.3-47.5M1245	84
16	9.5	21.0	12.59	295GC2-880/9.5-21	86
17	9.9	30.2	1.52	194GC2-115/10-30M1236	87
18	10.0	20.0	6.10	294GC2-410/10-20M1235	88
19	11.5	82.0	1.14	D223 GC2-75/11.5-82M45	89
20	12.0	50.0	2.16	225GC2-135/12-50M1245	91
21	13.7	41.0	11.90	324GC2-600/13.7-41M1	92
22	15.5;31.9	32.9;78.5	2.30	D245GC2-112/15.5-78M1245	93
23	17.0	56.0	2.28	225GC2-105/17-56M124	95
24	17.2	62.2	1.68	185GC2-78/17-62M14	96
25	18.0	78.0	1.65;1.73	183GC2-64/18-78M45	97
26	18.0	46.0	1.58	185GC2-68/18-46M45	99
27	19.0	41.0	4.99	225GC2-200/19-41	100
28	18.6	41.0	12.00	295GC2-440/18.5-41M1	101
29	20.0	40.8	4.60	224GC2-220/19.5-40M123	102
30	20.4	44.5	6.05	244GC2-220/20.5-44M12456	103
31	20.7	77.5	2.00	223GC2-73/20.5-76	104
32	21.0	80.0	3.48	225GC2-125/21-80M124	105
33	25.2	78.0	5.80	203GC2-175/25-78M12345	106
34	28.6	83.1	1.52	185GC2-42/29-82M12345	107
35	29.3	58.6	8.57	265GC2-220/29-58M1	108
36	33.0	56.0	7.92	8GC2-160/33-56	109
37	33.6	95.3	8.74	245GC2-200/33-95M1	110
38	34.4	76.0	12.11	295GC2-230/35-76	111
39	35.0	76.0	11.73	295GC2-215/35-76M1	112
40	35.0	75.0	12.70	295GC2-245/35-75M1	113
41	35.0	75.0	2.12	184GC2-41/35-75M124	115
42	35.7	107.1	4.50	245GC2-80/35-105M15	116
43	37.0	76.0	3.13	224GC2-73/37-76M12	117
44	38.0	57.0	29.90	324GC2-540/38-57M1	118
45	38.2	84.1	11.56	295GC2-205/38-85M1	119
46	38.9	56.0	19.50	241GC2-330/39-56M	120
47	39.0	56.0	17.32	201GC2-290/39-56	121
48	39.0	56.0	17.32	222GC2-290/39-56	122
49	40.6	76.2	5.51	202GC2-115/40-75M12345	123
50	43.0	125.0	3.68	184GC2-60/43-125M1256	124
51	43.3	100.0	12.30	295GC2-190/44-100M	125
52	43.4	78.0	6.05	204GC2-100/44-75M1245	126
53	44.5	76.0	4.50	GC2-87/44.5-76	127
54	45.0	76.0	21.50	323GC2-310/45-76M	128

No.	Suction Pressure kgf/cm^2	Discharge Pressure kgf/cm^2	Flow Rate Capacity MMCMD	Recommended compressor	Catalogue page No.
55	47.0	80.0	17.40	295GC2-238/47-80M1	129
56	47.1	80.0	30.68	324GC2-430/46-80M1	130
57	50.0	76.0	20.00	321GC2-292/50-76M1	131
58	52.8	76.0	27.60	322GC2-330/53-76M	132
59	53.0	76.0	32.30	291GC2-395/53-76C	133
60	53.0	76.0	47.20	321GC2-560/53-76M	134
61	52.8;55.0	76.0	31.50;36.00	16GC2-360/53-76MC0	135
62	53.7	80.6	29.90	324GC2-380/53-80M1	136
63	54.4	81.6	28.00	295GC2-340/55-82M	137
64	56.3	76.0	36.80	291GC2-400/56-76M	138
65	56.0	76.0	11.88	224GC2-130/56-76M12	139
66	63.0	85.0	38.24	291GC2-385/63-85M1	140
67	65.9	155.7	6.23	154GC2-63/65-155M124	141
68	68.0	92.0	27.62	291GC2-286/68-92M1	142
69	70.1	101.0	50.30	352GC2-440/70-100M	143
70	70.0	100.0	45.00	352GC2-395/70-100M	144
71	70.2	101.0	49.00	323GC2-410/70-100M	145
72	75.0	105.0	47.34	324GC2-420/75-105M1	146
73	74.8	101.0	60.00	352GC2-485/75-100M	147
74	84.0	121.0	58.90	25GC2-340/85-120MC0	148
75	125.0	300.0	3.68	S153GC2-21/125-300M125	149

Centrifugal compressors identification legend

For example: **S291GC2-395/53-76M13**

where:

S - The letter shows the single-shell compressor packaging type. Absence of a letter means a standard compressor design with one inlet and one outlet nozzle.

Double-entry or multi-sectional shell design are designated by the following letters:

Д - double-entry compressor;
П - two-section compressor with consecutive impellers arrangement;
С - two-section compressor with “back-to-back” impellers arrangement;
Т - three-section compressor.

29 - Two digits show the basic diameter of the compressor's shell inner bore, which is defined by a rounded value of ratio of bore diameters in millimeters to the number 50. (see tables on page 64).

Base 29 in the example refers to the diameter of 1450 mm.

1 - The digit shows the sequential number of basic shell design per the length.

The shell lengths increase from the sequential number 1 to 2, 3.

GC - Two letters show the compressor purpose and type:
GC - Gas Centrifugal;
VC - Air Centrifugal.

2 - Digit 1 – compressor design with horizontal shell joint.
Digit 2 – compressor design with vertical shell joint (“barrel” type).
Digit 3 – Gearbox type compressor design.

395 - The number refers to a rounded value of volumetric production capacity, corrected for starting conditions, in m^3/min.

53 - The number refers to the rounded value of nominal starting pressure (abs.), in kgf/cm^2.

76 - The number refers to the rounded value of nominal end pressure (abs.), in kgf/cm^2.

M - The letter "M" shows the compressor modification stipulating various design versions of main assembly units.

13 - The digit (digits) show the compressor modification type:

0 - dopeless design (MS+DGS), when designating a dopeless compressor with no other modifications, “0” is not put down;
1 - end seals - DGS;
2 - rotor rotation direction – anti-clockwise (looking from the drive side);
3 - location of the inlet nozzle on the right (looking from the drive side);
4 - location of legs' supporting surface along the longtitudal axis of the compressor (or a leg thickness lower than the axis);
5 - location of driven rotor end on the outlet nozzle side;
6 - availability of driving and driven rotor ends in a multi-shell compressor design.