Flare Facilities

The flare unit is designed for emergency and permanent combustion of petroleum and natural gas or other combustible gases at oil and gas collection, treatment and processing facilities, as well as at oil refineries and chemical plants.

Part of the equipment

Flare units are completed (depending on the requirements of the Customer):

- modern flare heads of domestic and foreign production to ensure smokeless gas combustion (according to environmental safety standards), automatic ignition and combustion control system of domestic and foreign production with a warranty period of 15-30 years;

- flare separators of capacitive and pipe design (pipe gas expanders) of a new type, designed to separate gas from liquid droplets and mechanical impurities, destroy liquid plugs formed in gas pipelines;

- shut-off valves and instrumentation devices, ladders and service platforms.

At the request of the Customer, flare units are supplied:

1) with separate barrels for high and low pressure gas combustion;
2) combined - with two or more trunks;
3) complete with lifting mechanisms, to bring the shafts to a horizontal position for repair or replacement of flare heads;
4) complete with lifting mechanisms, for lowering flare heads;
5) surface flare systems of open and closed type.

It is also possible to manufacture mobile flare units on a chassis or frame base.
Below is a range of flare installations.

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Designation

Flare installations are designed and manufactured in accordance with TU 3667-035-56562991-2011 (TU 3683-006-56562997-2003).

An example of an entry when ordering products is a flare unit FP-1.0-KhL1 TU TU 3667-035-56562991-2011; combined flare unit CFU-1,0-CP1 TU 3667-035-56562991-2011, where:

FP – flare plant;
CFU – combined flare unit ;
1,0 – amount of discharged gas, million m3/day.;
CP1 – Climatic performance.

Technical details

Specifications

Working environment	natural, petroleum gas and other combustible gases
Gas capacity, thousand nm3/day from 1 to 8000	
Fuel gas consumption for pilot burners, Nm3/h from 1.5?16	
Torch barrel diameter, mm	from 150 to 1400
Flare installation height, m	from 10 to 120
Service life, not less, years	20

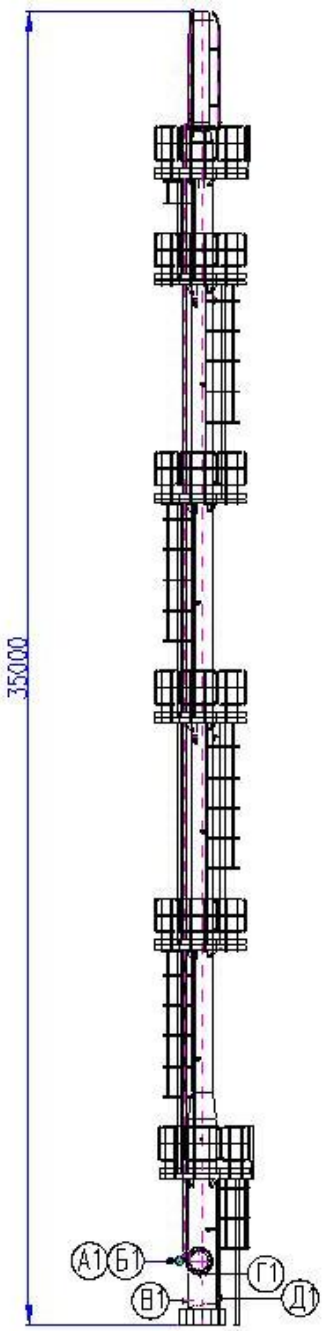
Range of produced flare units

Single barrel flares																					
Options		Flare Code / Sizes																			
		FP-0,05 CFU-0,05 UFOS-0,05 UFO-0,05			FP-0,1 CFU-0,1 UFOS-0,1 UFO-0,1			FP-0,25 CFU-0,25 UFOS-0,25 UFO-0,25			FP-0,7 CFU-0,7 UFOS-0,7 UFO-0,7			FP-1,0 CFU-1,0 UFOS-1,0 UFO-1,0			FP-1,5 CFU-1,5 UFOS-1,5 UFO-1,5			FP-2,0 CFU-2,0 UFOS-2,0 UFO-2,0	
Amount of discharged gas, thousand Nm3/day	HP	?50			50?100			100?250			250?700			700?1000			1000?1500			1500?8000	
	LP	?40			40?100			100?200			200?400			400?600			600?900			700?2700	
Barrel diameter, DN (mm)		150	200	300	150	200	300	150	200	300	400			500			600			700	1400
Barrel height, m		10	15	20	10	15	20	10	15	20	20	30	40	?35	?45		?40	?60		?40	?65
(in the presence of H2S <8% vol.)		?30			?30			?30			?30										

Примечания: Стволы высотой до 10 м. поставляются без маршей и площадок.
ВД - высокое давление до 0,2 МПа изб.;
НД - низкое давление до 0,05 МПа изб.

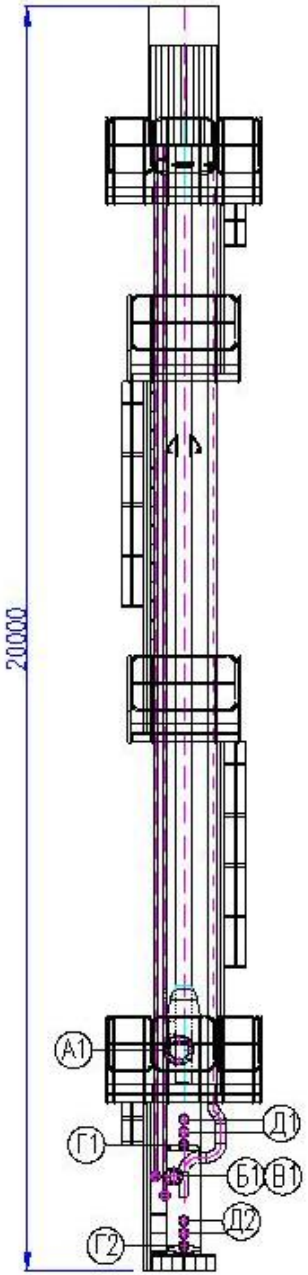
Main types of flare installations

Flare unit FP-0.5-KhL1; DN 500, H=35 m, Qgas=700,000 Nm3/day


35000
А1
Б1
В1
Г1
Д1

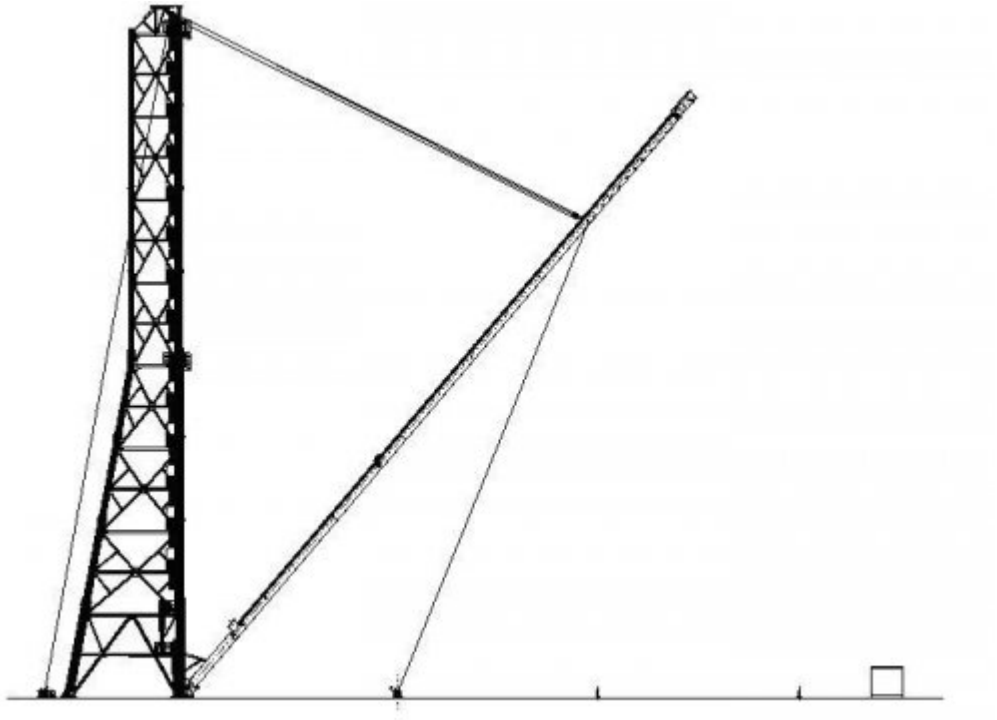
Designation	Purpose	Quantity
A1	Gas to pilot burner	1
B1	Waste gas inlet	1
V1	Condensate drain	1
G1	For instrumentation	1
D1	For instrumentation	1

Combined flare unit CFU-0.5-KhL1; DN 250/150, H=20 m, Qgas=300000/40000nm3/day

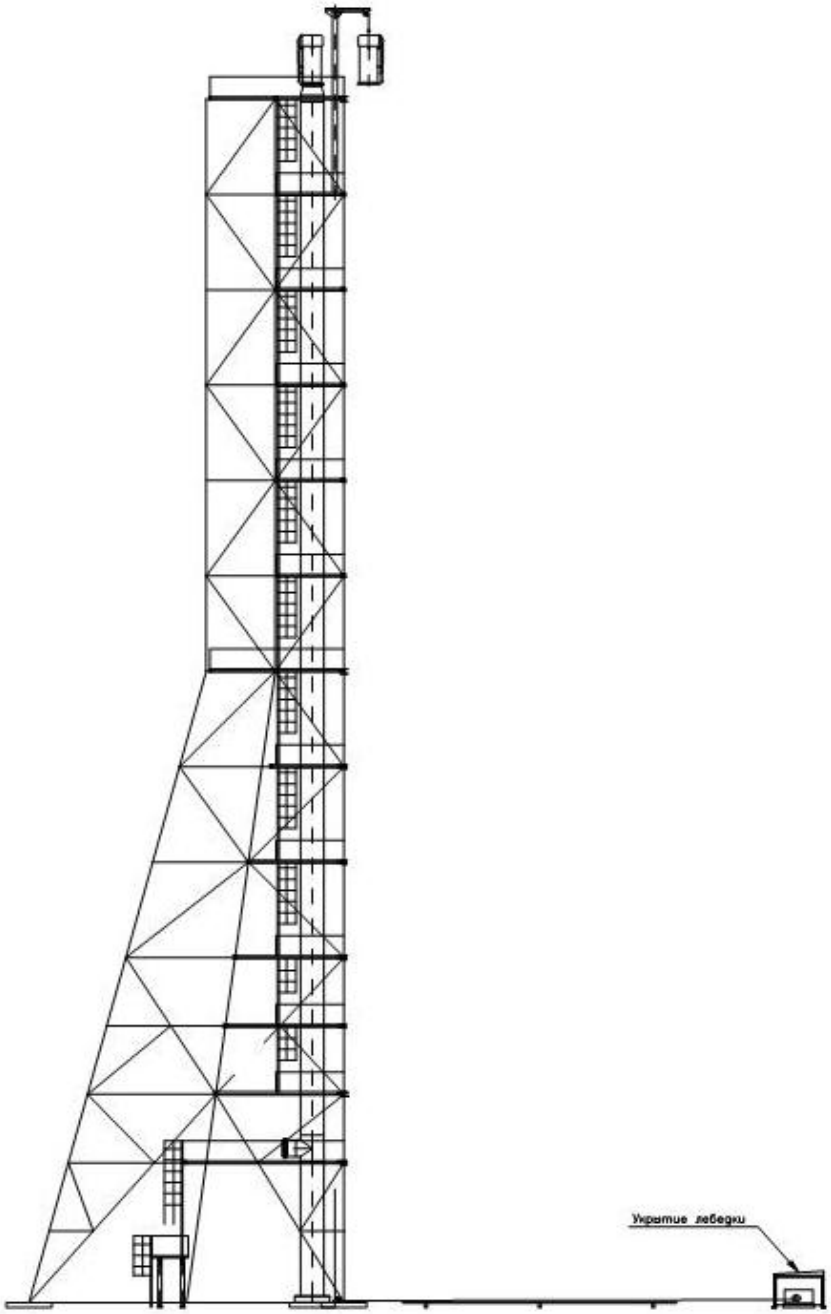

20000
А1
Г1
Д1
Б1
В1
Д2
Г2

Обозн.	Назначение	Кол.
А1	Вход газа ВД	1
Б1	Газ на дежурную горелку	1
В1	Вход газа НД	1
Г1,2	Дренаж конденсата	2
Д1,2	Для КИП	4

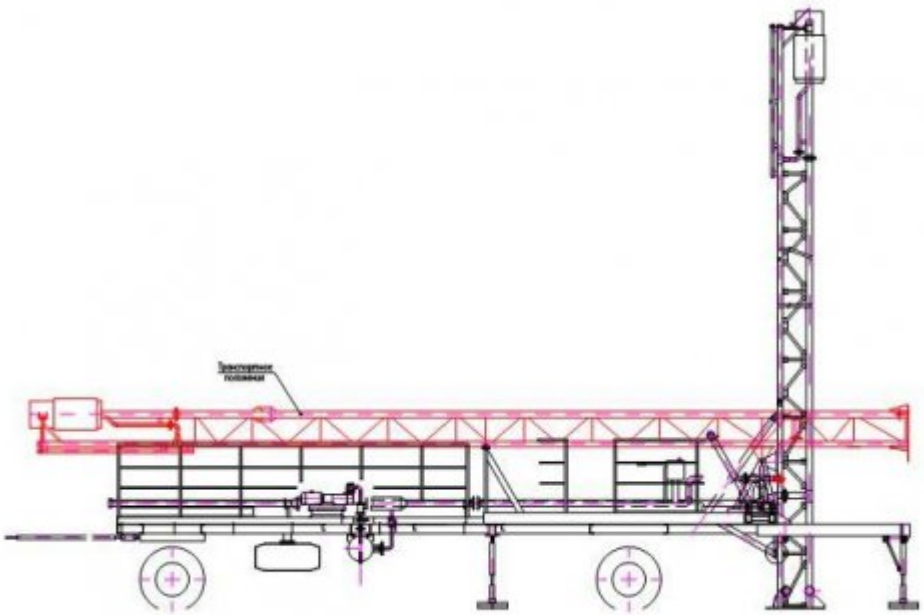
Combined flare unit CFU-0.5-KhL1; DN 250/150, H=20 m, Qgas=300000/40000nm3/day



Flare unit with drop heads UFO-2.0-KhL1; DN 1000/1000, H=80 m


Укрытие лебедки

Chassis flare



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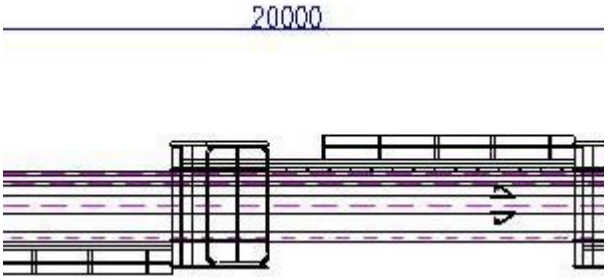
20000

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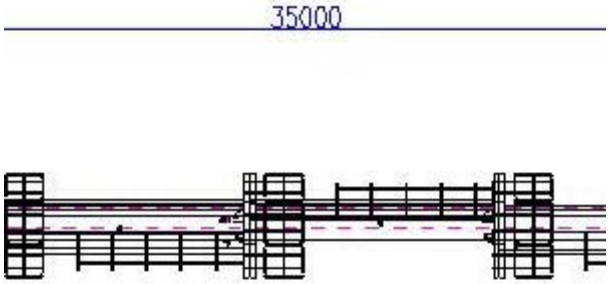
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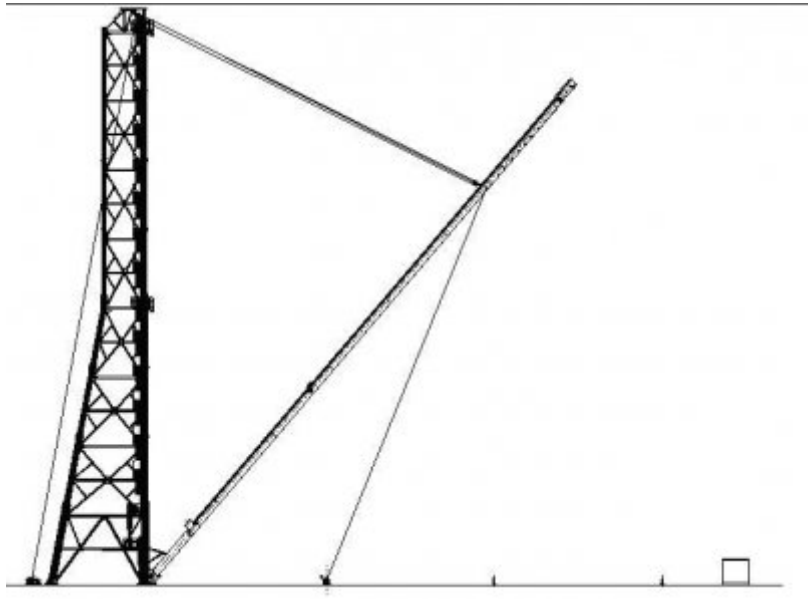
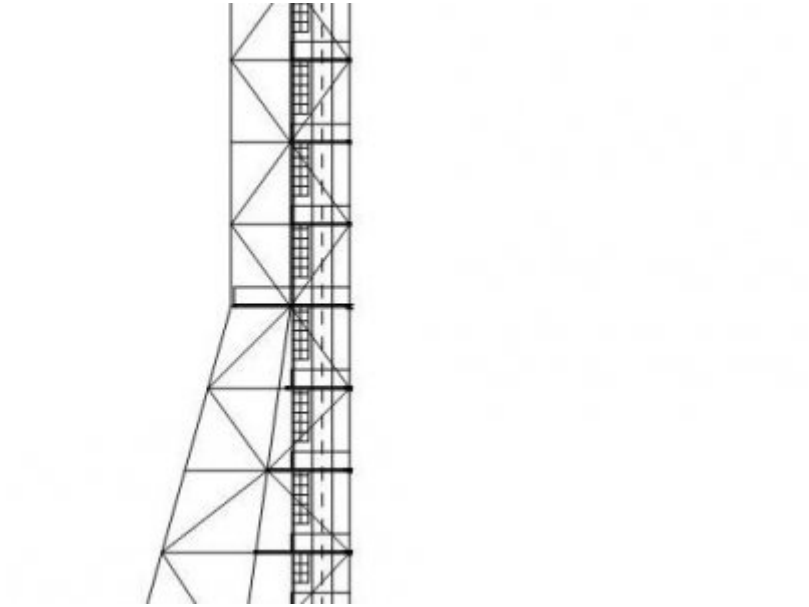
- 
- 

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