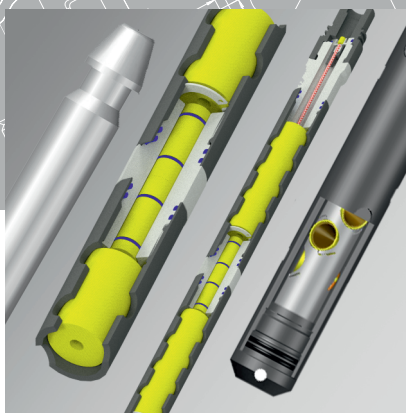


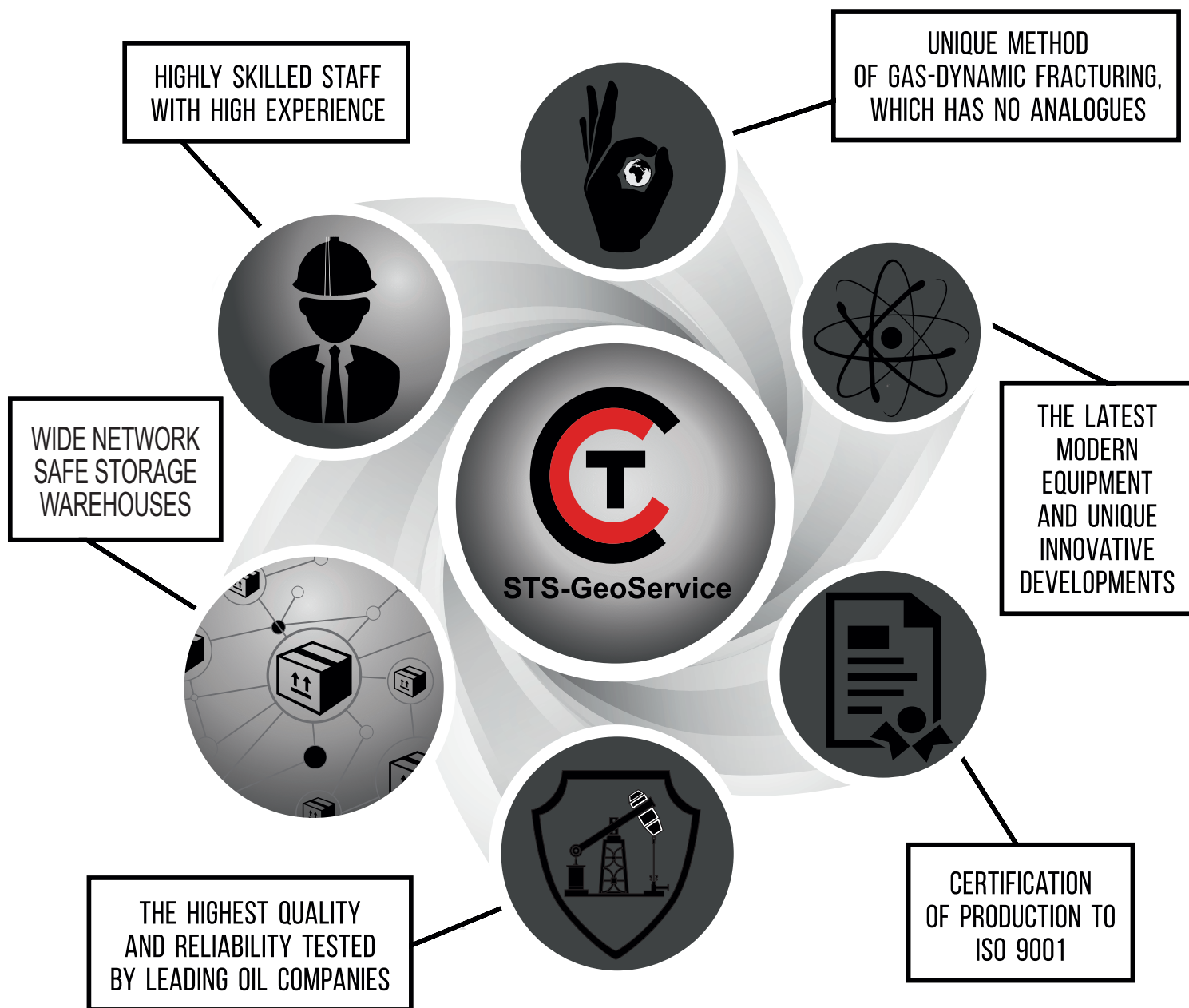


STS-GeoService
research and production company



CATALOG OF PRODUCTION

WWW.STS-GEO.COM



Scientific production company LLC "STS-GeoService" is one of the top-ranked national leaders in implementing innovative effective methods for oil and gas production (flow rate increasing).



The company has successfully established itself in the market for the production of shooting and blasting equipment. The production has implemented a quality management system that meets the requirements of ISO 9001-2011.

The use of modern technologies ensures reliability, safety and high quality of manufactured products. The extensive geography of warehouses of responsible storage allows to make delivery promptly.

All products manufactured by our company have unique features that give not only technological advantages, but also allow us to provide the best price/quality ratio.

A reliable design with a minimum number of parts ensures high quality of opening of productive layers.

Main parameters and characteristics

Name of the parameter	PKN64	PKN73	PKN89	PKN102	PKN114
Types sizes, mm	64	73	89	102	114
Minimum passing diameter in the column, mm	84	94	115	118	130
Operating pressure range, MPa	0,1-80,0	0,1-80,0	0,1-100,0	0,1-100,0	0,1-100,0
Permissible application temperature° C (with a holding time of 2 hours)	165	165	165	165	165
Shot density, shot per meter	20	20	20	20	20
Phasing, degrees	60	60	60	60	60

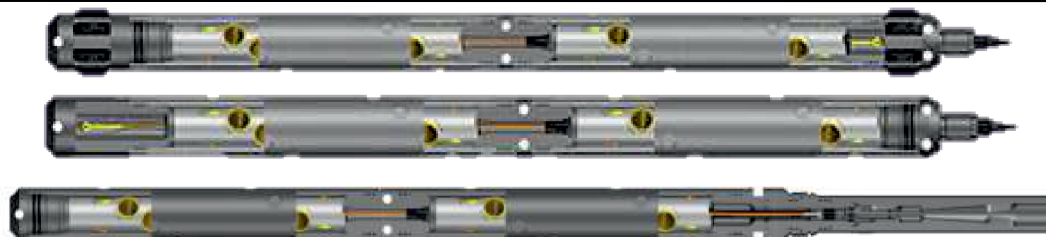
Case shaped perforators with an outer diameter from 64 to 114 mm for single use. Single-use perforators can be delivered to the perforation interval both on a geophysical cable and on tubing with an internal diameter of at least 50 mm.

The perforators that descend on the cable can be multi-sectional and driven by a cartridge of the PVPD-N type installed in the lower part of the perforator.



Main parameters and characteristics charges «VECTOR»

Name of the system	Name of the charge	Weight of per charge, g	SS-05 methodology (Rostekhnadzor)		Penetration depth on a concretetarget, mm
			Actual penetration depth, mm	The average diameter of the inlet hole in the steel plate, mm	
PKN64	«VECTOR»64BH	15,5	105,9	21,5	254
	«VECTOR»64DP	14,5	136,5	9,6	705
PKN73	«VECTOR»73BH	19	126,8	23,0	300
	«VECTOR»73DP	17	152,3	12,0	711
PKN89	«VECTOR»89BH	25	118,8	24,1	280
	«VECTOR»89DP	22	182	12,1	968
PKN102	«VECTOR»102BH	30	114,4	23,5	345
	«VECTOR»102DP	30	222,7	12,1	1112
PKN114	«VECTOR»102BH	30	-	23,2	340
	«VECTOR»102DP	30	-	12,1	1182



- Provides a high-quality cut of tubing with minimal blasting action;
- The design provides an unobstructed ascent from the well after actuation;
- Reliable construction;
- Initiated by a safe explosive cartridge PGN-150;
- Cutter design provides easy retrieving from the well after operation;



Main parameters and characteristics

Name of the parameter	Name		
	TKV44	TKV54	TKV67
Maximum hydrostatic pressure, MPa	80	80	80
Permissible application temperature C (with a holding time of 2 hours)	150	150	150
Outer diameter, mm	44	54	67
Diameter of the cut tubing	60	73	89
Explosive weight	23	25	40

PVP - for separation of layers
PVPC - for cementing works



- For initiate of any packer, universal charge is used. This charge is initiated by the safe explosive cartridge;
- Increased reliability and the stability of the operation;
- Easy drillable packer PVP/PVPC is installed by the explosion chamber.
- Saving time for assembling the explosion chamber.

Main parameters and characteristics

Parameters	Value				
	PVP 102 / PVPC 102	PVP 110 / PVPC 110	PVP 118 / PVPC 118	PVP 135 / PVPC 135	PVP 146 / PVPC 146
Outer diameter, mm	102	110	118	135	146
Assembly length, mm	405/655	465/715	465/715	530/780	530/780
Casing inner diameter, mm: minimum maximum	109 118	117 124	125 133	144 152	154 164
Pressure rating, MPa	50	50	50	40	30
Weight, kg	11/13	18/20	21/23	26/29	28/31

Complex stimulation technology allows are used for jet perforating with simultaneous gas-dynamics treatment of bottomhole zone, in order to stimulate well production.



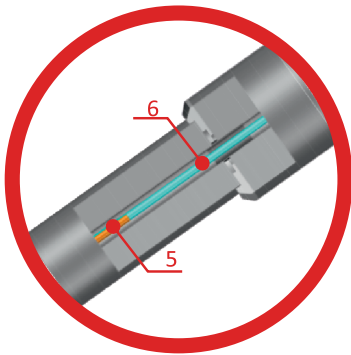
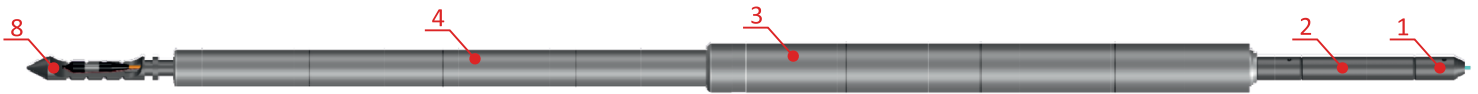
Main parameters and characteristics CPG «URAGAN»

Parameters	Value
Outer diameter, mm	64-114
Minimal inner diameter of casing, mm	84
Maximum allowable application parameters:	
- temperature, °C	165
- hydrostatic pressure, MPa	80
Shot density, shot per meter	20
Phasing, degrees	60
Number of propellant chambers	5
Maximum number of propellant charges in one chamber	30
Propellant charge weight, kg	1,6
Minimum allowable hydrostatic pressure, MPa	5

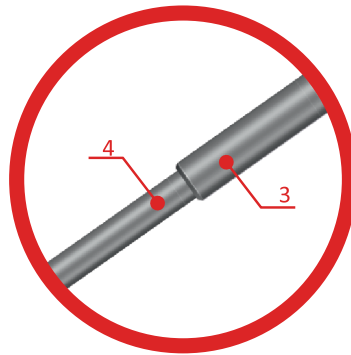
GDK-170 GAS GENERATOR

GDK-170 Gas Generator is the best tool
for gas-dynamic fracturing

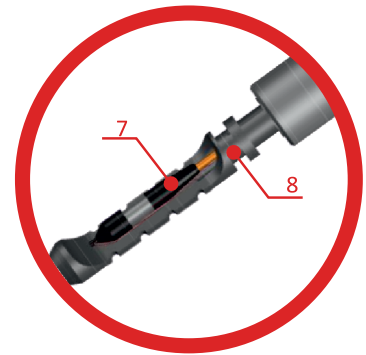
- | | |
|---------------------------------------|-------------------------------------|
| 1. <i>Cone</i> | 5. <i>Detonating cord</i> |
| 2. <i>Weights</i> | 6. <i>Logging cable</i> |
| 3. <i>The main charges</i> | 7. <i>Blasting cartridge</i> |
| 4. <i>The igniting charges</i> | 8. <i>Cone</i> |



Volumetric and layerwise
combustion modes



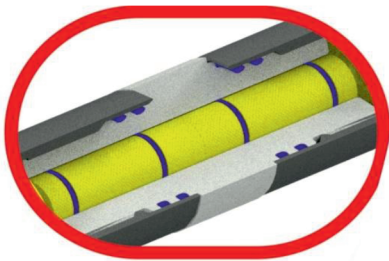
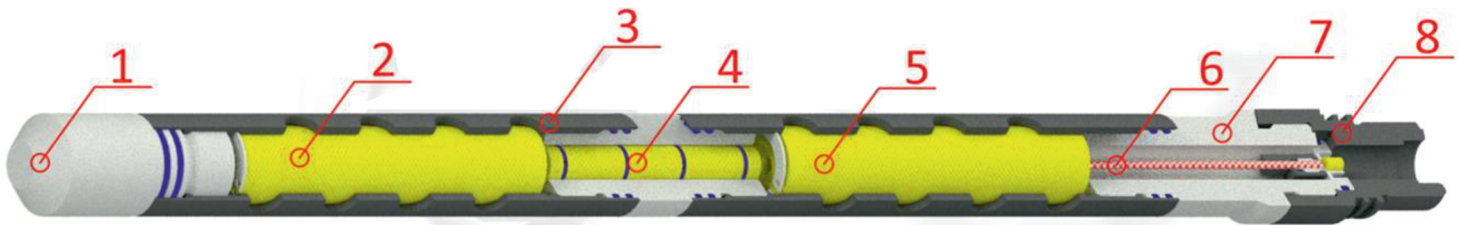
Various charges are used
for time and velocity
combustion control



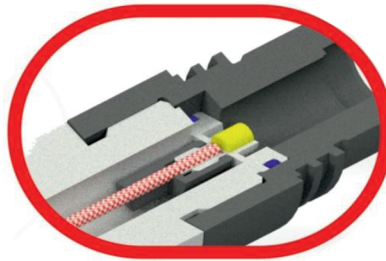
Gas generator is initiated
by blasting cartridge
through detonating cord

Gas Generator GDK-170, lowering by tubing

- | | |
|-----------------------------------|-------------------------------|
| 1. <i>Cone</i> | 5. <i>The igniting charge</i> |
| 2. <i>Main charges</i> | 6. <i>Detonating cord</i> |
| 3. <i>Frame</i> | 7. <i>Head</i> |
| 4. <i>The intermediate charge</i> | 8. <i>Adapter</i> |



Reliable transfer
of combustion
between frames



The node of translation
of detonation from
blast head



The openings make up more
than 60% of the surface
of the generator frame

GDK-170 TECHNICAL CHARACTERISTICS

Parameter description	Version norm					
Dimension-type	GDK-170-40	GDK-170-50	GDK-170-56	GDK-170-68	GDK-170-88	GDK-170-104
Outer diameter, mm	40	50	56	68	88	104
Maximum allowable hydrostatic pressure, MPa	80	80	80	80	80	80
Maximum allowable temperature	170	170	170	170	170	170
	ZGD-40	ZGD-50	ZGD-56	ZGD-68	ZGD-88	ZGD-104
Weight of a single charge, kg	0,9	1,6	1,9	2,9	5,1	7,1
Diameter single charge, mm	40	50	56	68	88	104
Charge length, mm	500	500	500	500	500	500
The inner diameter, mm	16	16	16	16	16	16



STS-GeoService
research and production company

Working with us is profitable, reliable, convenient!

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