



International
conformity certificate
GOST R ISO 9001-2015
(ISO 9001-2015)
for quality management
system



Certificate
of conformance
to UNECE
Regulations No.110

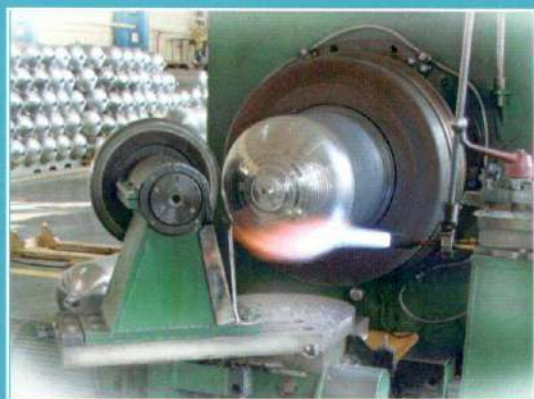


Manufacturer recognition
certificate and Class
approval certificate
of Russian Marine
Register of Shipping



Certificates of conformance
to technical regulations
TR TS 032/2013
and TR TS 018/2011

For more than 20 years, the research and production company Real Storm has been developing and manufacturing lightweight metal composite high-pressure cylinders with a seamless aluminum liner and a pressure composite shell. All the cylinders meet the Custom Union regulations TR TS 032/2014 and TR TS 018/2011.



The batch production of 210-liter capacity cylinders that hold pressure up to 39,2 MPa is set up premises equipped with local and imported innovative machinery.

The manufacturing and testing processes are held in a closed cycle thus delivering safe products of high quality. The cylinders resist pressure that is 3-3,5 times higher than the working pressure, and sustain more than 15 thousand of cyclic loads.



AREAS OF APPLICATION:

- ✓ Transportation and storage of compressed natural gas used as motor fuel in automobiles, buses (NEFAZ, Ikarus, PAZ and others), trucks such as Kamaz, and agricultural vehicles.
- ✓ Equipping individual gas accumulators, gas-cylinder installations for mobile gas filling stations, mobile gas fillers, and automatic compressor gas fillers
- ✓ Transportation, storage and usage in equipment that operates in compressed gas and liquids (air, nitrogen, argon, carbon dioxide, helium, natural gas) under pressure of up to 39,2 MPa.



The construction and manufacturing technique for the cylinders are specifically-designed in Russia and are protected by a range of patents.

Cylinders for automobiles (Technical Specification TU 4591-010-13055988-2006)



Metal composite cylinders with the capacity from 47 to 210 liters and sustaining pressure of 20 MPa are installed in automobiles and are meant for transportation and storage of compressed natural gas (methane) as well as for using it as engine fuel in accordance with the State Standard GOST 27577. These cylinders are used in cars, buses, trucks and agricultural vehicles.

Cylinders with working pressure of 20,0 MPa

Designation	V, l	D, mm	Length, mm	Mass, kg	Designation	V, l	D, mm	Length, mm	Mass, kg
BA 20.20.224/820	20,0	224	820	21,1	BA 67.20.401/840	67,0	401	840	49,5
BA 30.20.224/1170	30,0	224	1170	29,7	BA 80.20.401/965	80,0	401	965	57,0
BA 40.20.224/1520	40,0	224	1520	38,2	BA 85.20.401/1015	85,0	401	1015	60,0
BA 50.20.224/1880	50,0	224	1880	47,1	BA 96.20.401/1125	96,0	401	1125	67,0
BA 47.20.327/860	47,0	327	860	36,0	BA 100.20.401/1165	100,0	401	1165	69,0
BA 50.20.327/900	50,0	327	900	37,5	BA 132.20.401/1485	132,0	401	1485	88,5
BA 67.20.327/1140	67,0	327	1140	47,5	BA 160.20.401/1765	160,0	401	1765	105,5
BA 80.20.327/1360	80,0	327	1360	56,5	BA 185.20.401/2005	185,0	401	2005	120,0
BA 100.20.327/1660	100,0	327	1660	69,0	BA 210.20.401/2255	210,0	401	2255	135,0
BA 123.20.327/2000	123,0	327	2000	83,5					

Cylinders with working pressure of P 24,5 MPa

Designation	V, l	D, mm	Length, mm	Mass, kg	Designation	V, l	D, mm	Length, mm	Mass, kg
BA 80.24,5.330/1360-A	80,0	330	1360	59,0	BA 132.24,5.406/1485-A	132,0	406	1485	92,4
BA 83.24,5.330/1400-A	83,0	330	1400	60,4	BA 160.24,5.406/1765-A	160,0	406	1765	110,3
BA 100.24,5.330/1660-A	100,0	330	1660	77,0	BA 185.24,5.406/2005-A	185,0	406	2005	126,0
BA 123.24,5.330/2000-A	123,0	330	2000	92,0	BA 185.24,5.406/2065-A	185,0	406	2065	127,0
BA 80.24,5.406/965-A	80,0	406	965	57,2	BA 210.24,5.406/2255-A	210,0	406	2255	147,0
BA 100.24,5.406/1165-A	100,0	406	1165	72,0					

Cylinders for compressed gas, air, and liquids (Technical Specification TU 2296-009-13055988-2005)



These metal composite cylinders with the capacity from 47 to 185 liters and sustaining pressure of 20 and 24,5 MPa are used for transportation, storage, and usage of compressed gases and liquids. The cylinders can hold air, nitrogen, argon, carbon dioxide, oxygen, helium, fire-extinguishing agents, and natural gas.

Cylinders with working pressure of 20,0 MPa

Designation	V, l	D, mm	Length, mm	Mass, kg	Designation	V, l	D, mm	Length, mm	Mass, kg
БГ 47.20.326/860	47,0	326	860	36,0	БГ 80.20.398/965	80,0	398	965	57,0
БГ 50.20.326/900	50,0	326	900	37,5	БГ 85.20.398/1015	85,0	398	1015	60,0
БГ 67.20.326/1140	67,0	326	1140	47,5	БГ 96.20.398/1125	96,0	398	1125	67,0
БГ 80.20.326/1360	80,0	326	1360	56,5	БГ 100.20.398/1165	100,0	398	1165	69,0
БГ 100.20.326/1660	100,0	326	1660	69,0	БГ 132.20.398/1485	132,0	398	1485	88,5
БГ 123.20.326/2000	123,0	326	2000	83,5	БГ 160.20.398/1765	160,0	398	1765	105,5
БГ 67.20.398/840	67,0	398	840	49,5	БГ 185.20.398/2005	185,0	398	2005	120,0

Cylinders with working pressure of P 24,5 MPa

Designation	V, l	D, mm	Length, mm	Mass, kg	Designation	V, l	D, mm	Length, mm	Mass, kg
БГ 50.24,5.330/900	50,0	330	900	39,0	БГ 80.24,5.406/965	80,0	406	965	57,2
БГ 80.24,5.330/1360	80,0	330	1360	59,0	БГ 100.24,5.406/1165	100,0	406	1165	72,0
БГ 83.24,5.330/1400	83,0	330	1400	60,4	БГ 132.24,5.406/1485	132,0	406	1485	92,4
БГ 100.24,5.330/1660	100,0	330	1660	77,0	БГ 160.24,5.406/1765	160,0	406	1765	110,3
БГ 123.24,5.330/2000	123,0	330	2000	92,0	БГ 185.24,5.406/2005	185,0	406	2005	126,0

The index of weight ratio is 0,60-0,75. The cylinders are non-magnetic, and are made of materials resistant to aggressive environment and sea water.

Cylinders for compressed gas, air, and liquids (Technical Specification TU 1410-001-13055988-2005)



These metal composite cylinders have the capacity from 12,5 to 160 liters and are meant for working pressure from 30 to 320 kgf/cm². They are used to store under pressure water, water solutions, carbon dioxide, sulfur hexafluoride, nitrogen and their mixtures, as well as halocarbon products and their environmentally safe substitutes. Storage of other liquids is also possible, if they are compatible with the corrosion resistance of the cylinder's body. You can find more information on our website www.realstorm.ru

Aluminum cylinders with working pressure of P 40 kgf/cm² (3,9MPa)

Designation	V, l	D, mm	Length, mm	Mass, kg
БИ-60-40	60 (0,060)	370	774	19,0
БИ-70-40	70 (0,070)	370	874	21,0
БИ-80-40	80 (0,080)	370	974	23,0
БИ-100-40	100 (0,100)	370	1174	28,0
БИ-130-40	130 (0,130)	370	1474	32,5
БИ-160-40	160 (0,160)	370	1774	39,0

Metal composite cylinders with working pressure of P 60 kgf/cm² (5,9 MPa)

Designation	V, l	D, mm	Length, mm	Mass, kg
БИ 60-60	60 (0,060)	380	826	24,2
БИ 70-60	70 (0,070)	380	926	27,1
БИ 80-60	80 (0,080)	380	1026	30,0
БИ 100-60	100 (0,100)	380	1226	38,5
БИ 130-60	130 (0,130)	380	1526	46,4
БИ 160-60	160 (0,160)	380	1826	55,8

Metal composite cylinders with working pressure of P 150 kgf/cm² (14,7 MPa)

БИ 20-150	20 (0,020)	268	576	11,5	БИ 80-150	80 (0,080)	390	994	42,5
БИ 30-150	30 (0,030)	268	795	16,1	БИ 100-150	100 (0,100)	390	1194	51,2
БИ 60-150	60 (0,060)	390	794	34	БИ 130-150	130 (0,130)	390	1494	63,8
БИ 70-150	70 (0,070)	390	894	38,4	БИ 160-150	160 (0,160)	390	1794	76,5
					БИ 12,5-150	12,5 (0,0125)	268	412	8,0

Cylinders for compressed gas, air, and liquids (Technical Specification TU 2296-012-13055988-2009)



These combined metal composite cylinders have the capacity from 50 to 185 liters and hold working pressure of 31,4 and 39,2 MPa. They are meant for transporting, storing and using compressed gases and liquids: air, nitrogen, argon, carbon dioxide, oxygen, hydrogen, helium, fire-extinguishing agents, natural gas.

Cylinders with working pressure of 31,4 MPa and 39,2 MPa

Designation	V, l	D, mm	Length, mm	Mass, kg	Designation	V, l	D, mm	Length, mm	Mass, kg
БМК50.31,4.334/900	50,0	334	900	43,0	БМК160.31,4.410/1765	160,0	410	1780	131,0
БМК67.31,4.334/1140	67,0	334	1140	54,0	БМК185.31,4.410/2005	185,0	410	2020	151,0
БМК80.31,4.334/1360	80,0	334	1360	63,0	БМК80.39,2.418/980	80,0	418	980	90,5
БМК100.31,4.334/1660	100,0	334	1660	81,5	БМК100.39,2.418/1180	100,0	418	1180	108,4
БМК123.31,4.334/2000	123,0	334	2000	97,0	БМК132.39,2.418/1500	132,0	418	1500	135,2
БМК80.31,4.410/965	80,0	410	965	66,0	БМК160.39,2.418/1780	160,0	418	1780	162,0
БМК100.31,4.410/1165	100,0	410	1180	82,0	БМК185.39,2.418/2020	185,0	418	2020	183,4
БМК132.31,4.410/1485	132,0	410	1500	108,0					

Cylinder Modules for Gas Supply – Technical Specification TU 2296-014-13055988-2010

These modules sustain working pressure up to 39,2 MPa and have the capacity of 25000 liters. They are used for transporting, storing and using compressed air and technical gases. The modules can hold nitrogen, argon, air, natural gas, etc. There are different types of such modules, including gas accumulators, gas-cylinder installations, and mobile gas fillers.

GAS ACCUMULATORS



Gas accumulators are used as tanks in CNG filling stations and other stationary systems that apply technical gas.

GAS-CYLINDER INSTALLATIONS



Gas-cylinder installations as components of mobile gas-filling stations can be used separately in systems of stand-by supply of natural gas and other technical gases.

SMALL-SIZE MOBILE GAS FILLERS



Small-size mobile gas fillers are used for gas supply in small motor transport services and for heating standalone buildings and other consumers.



Mobile gas filling stations are used to refuel vehicles that work on natural gas and are out of reach of an automatic compressor gas filler.

The cylinders of mobile filling stations are refilled with natural gas compressed to 24,4 MPa (250 kgf/cm²) at automatic compressor gas fillers. They then transport the gas to refill those vehicles that use natural gas as engine fuel.

Mobile gas fillers can also refill stationary gas-cylinder installations if allowed so by the technology of said installations.

Vehicles can be refilled up to the gage pressure of 19,6 MPa (200 kgf/cm²).

Mobile gas filling stations are gas-cylinders installed on platforms of Kamaz or Nefaz trucks especially equipped for transportation of dangerous goods (class of hazard 2).

Climatic type – U2 according to the State Standard GPST 15150-69 for working in ambient temperature from -60C to +65C.

Our products have been included in the lists of special project vehicles, and are used in the design of floating facilities and ground-based complexes of the aviation infrastructure.

In fire extinguishing systems, our cylinders ensure the safety of many buildings and facilities in the country, such as historical monuments, airports, shopping malls, oil production facilities, combustible material storage facilities, and high-voltage electrical substations.

The Gazprom companies are large consumers of our cylinders, as well as the KAMAZ, NEFAZ and GAZ Group car factories.

INNOVATIONS:

Within the Russia's Arctic Strategy, we have designed and are now producing cylinders that can be used in extreme weather conditions down to -60 C.

The manufacturing process and the products are protected by patents and certificates.



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