

English



AUTOGENOUS EQUIPMENT PLANT[®]
DONMET

www.donmet.com.ua



Dear customers of “DONMET” plant!

We have been manufacturing high-quality gas welding equipment for more than 20 years.

If You have questions, don't hesitate to contact us!

- Hotline: +38 (098) 471-75-01, +38 (050) 053-04-81;
- Skype: donmetsbut;
- E-mail: svarka@donmet.com.ua.

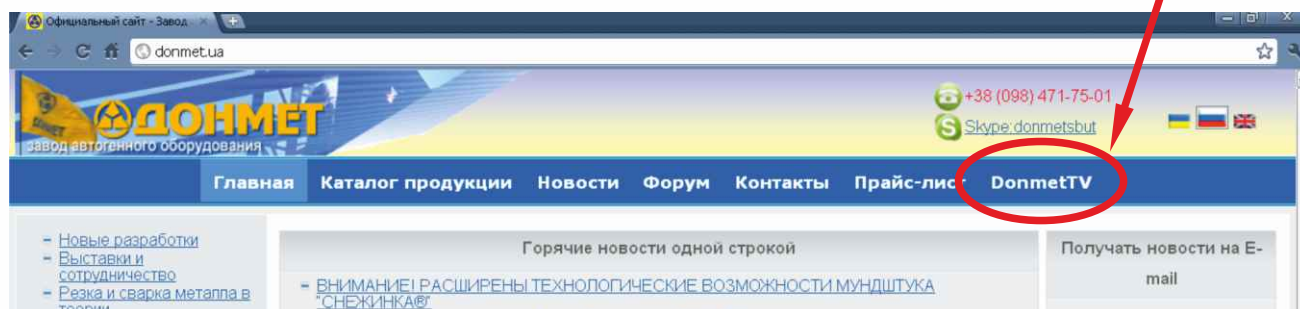
Technical support:

- Skype: donmetlab;
- E-mail: svarka@donmet.com.ua.

Specialists of “DONMET” plant will give professional answers to all of Your questions.

You can learn actual prices for our goods and make your order via our web-site: www.donmet.ua.

You are strongly recommended to watch DonmetTV of our web-site!





- 220 skilled professionals;
- 175 units of modern equipment and mechanical assembly manufacturing;
- research laboratory that is accredited by UkrSEPRO;
- more than 30,000 consumers;
- DONMET produces 80 types of equipment for gaseous oxygen cutting, welding, soldering, brazing, heating and thermal hardening;

-
- DONMET Autogenous Equipment Plant Ltd. was founded in 1990.
 - Our company has been a player over 20 years at the market of autogenous equipment. We produce different types of our own designed and patented equipment. Now DONMET is the largest manufacturer in Ukraine that designs and produces certificated equipment for cutting, brazing, welding and heating of metal etc. Equipment produced by DONMET is used successfully at many plants, coal mines and associations in Ukraine and also in the countries of CIS and the Baltic Sea region.
 - DONMET is a prize winner in the competition «The best 100 Ukrainian goods 2003».

-
- In 2008-2013 DONMET started to produce 21 new models of cutting torches, welding and air torches, pressure regulators etc.
 - All products are certified by UkrSEPRO according to ISO 9001-2001, Certificate No. UA2.021.433.
 - Warranty period for the products is 12, 18 or 24 months.
 - DONMET solves difficult technical problems in the field of autogenous equipment.

CUTTING TORCHES

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The plant publishes a catalogue of the special equipment as a separate issue. Just make your order!

CUTTING TORCHES TYPE R1 AND R3

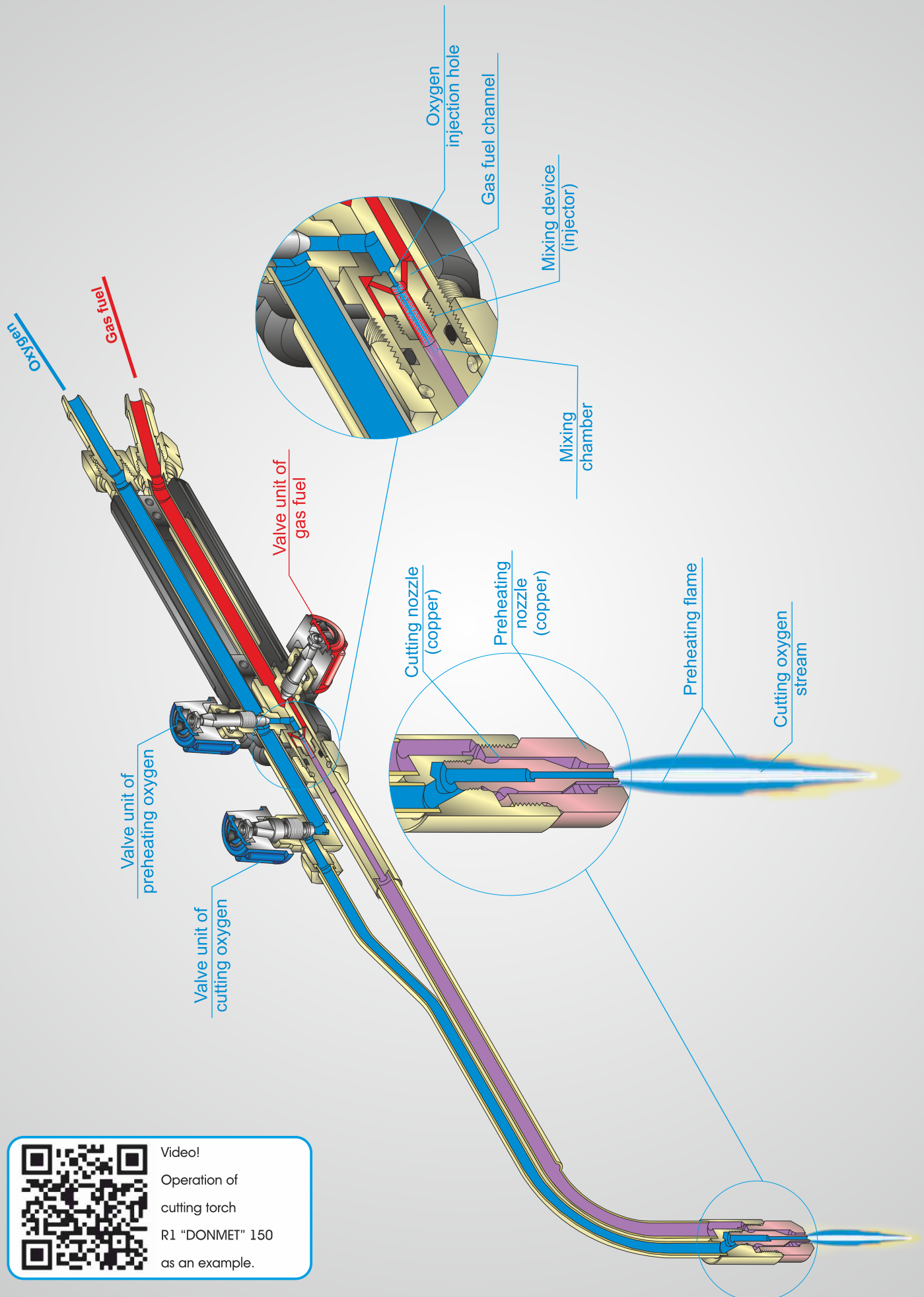


Designated for hand oxy-gas parting cutting of low-carbon steel with thickness: R1 – up to 100 mm, R3 – up to 300 mm.

THE MAIN ADVANTAGES:

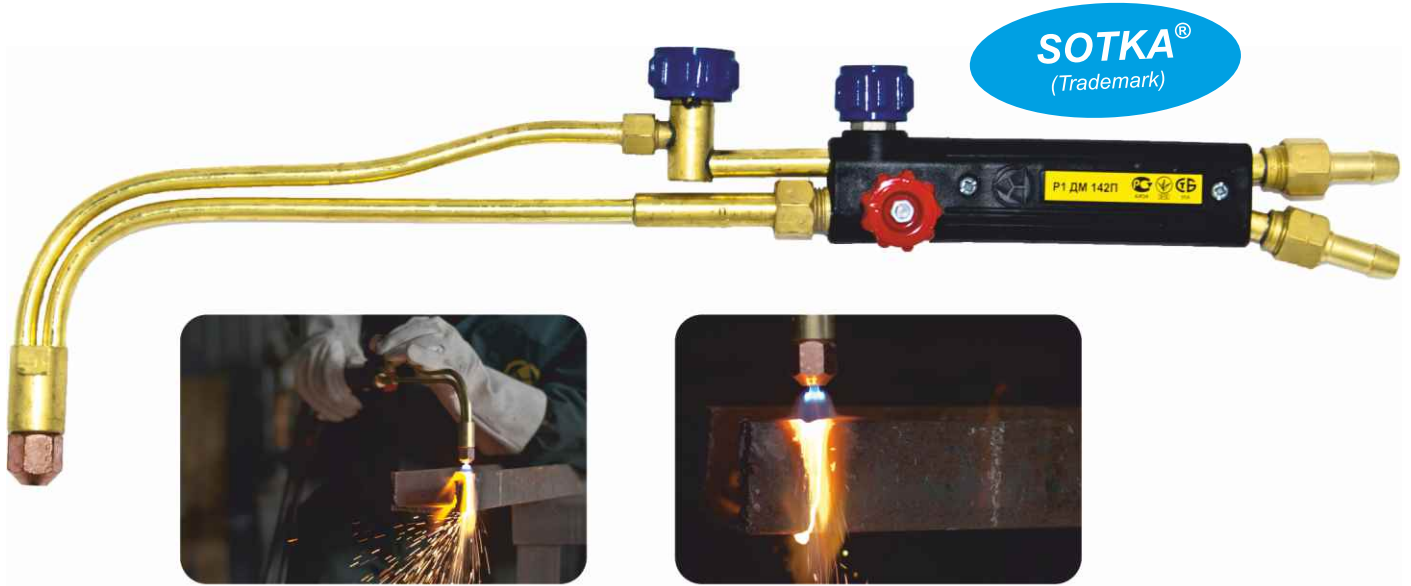
- the lightest and most efficient cutting torches;
- high safety while cutting – 100% resistance to flashbacks due to licensed design of mixing unit;
- long service life due to using of high quality materials and high-tech methods for materials processing.

PRINCIPAL DIAGRAM OF CUTTING TORCHES TYPE R1 AND R3



Video!
Operation of
cutting torch
R1 "DONMET" 150
as an example.

R1, "DONMET" 142

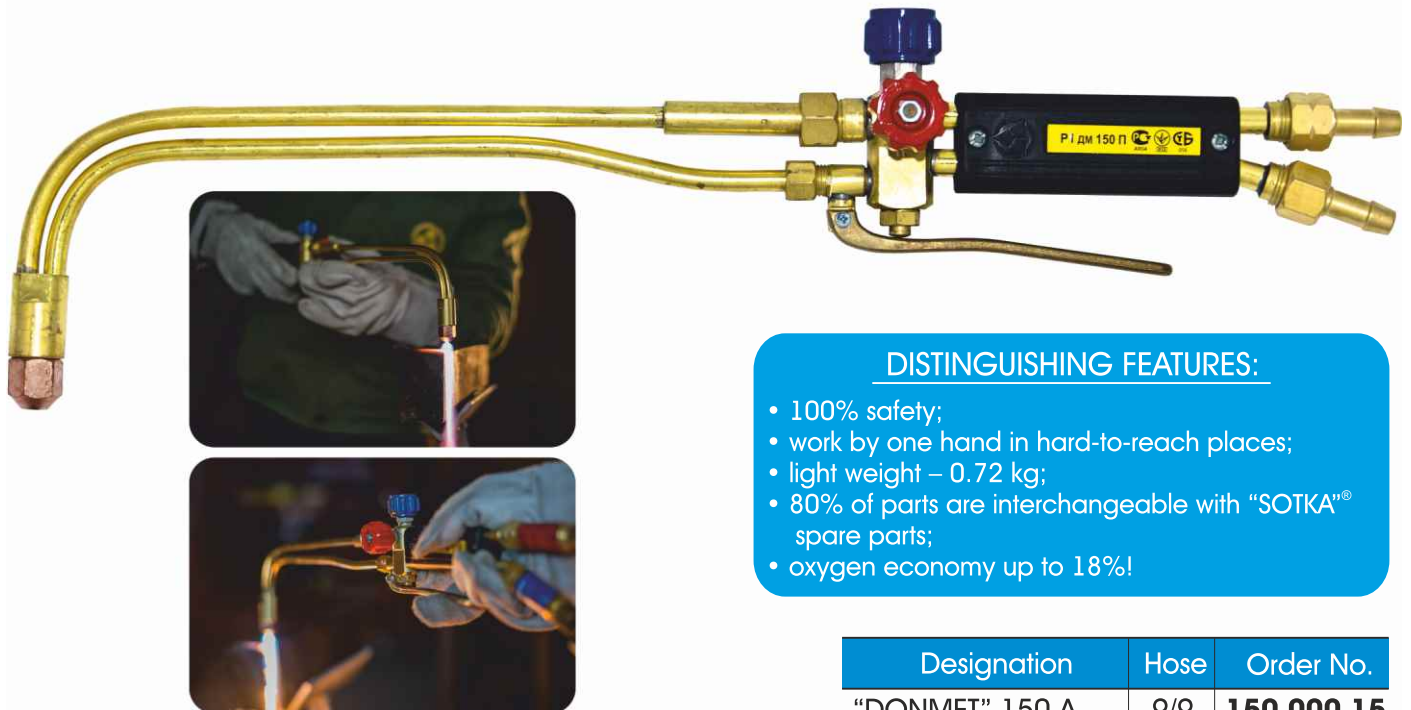


DISTINGUISHING FEATURES: THE LIGHTEST AND MOST EFFICIENT CUTTING TORCH

Cutting thickness –	up to 100 mm
Used gas fuel:	Acetylene (A)
	Propane-butane (P)
	Methane (M)
	MAF
Cutting torch weight –	no more than 0.75 kg
Cutting torch length –	no more than 500 mm

Designation	Hose	Order No.
"DONMET" 142 A	6/6	142.000.00
"DONMET" 142 A	9/9	142.000.02
"DONMET" 142 P	6/6	142.000.01
"DONMET" 142 P	9/9	142.000.03
"DONMET" 142 M	9/9	142.000.10
"DONMET" 142 MAF	9/9	142.000.13

R1, "DONMET" 150



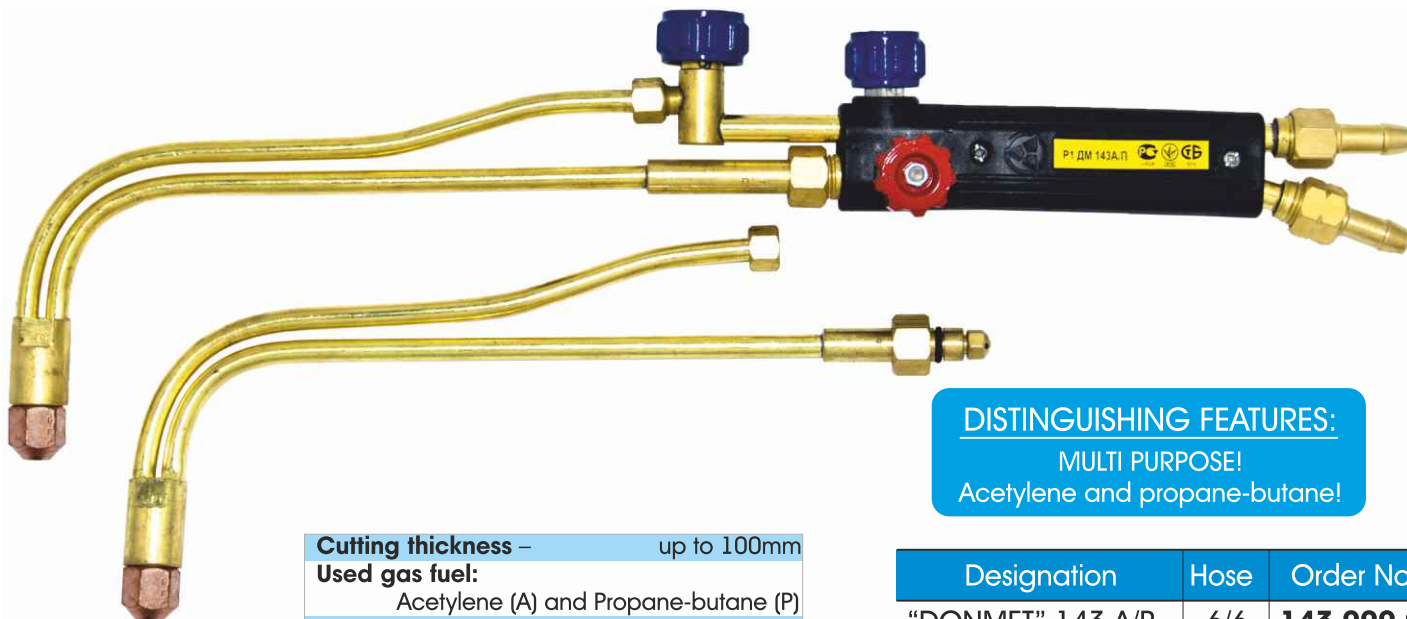
DISTINGUISHING FEATURES:

- 100% safety;
- work by one hand in hard-to-reach places;
- light weight – 0.72 kg;
- 80% of parts are interchangeable with "SOTKA"® spare parts;
- oxygen economy up to 18%!

Cutting thickness –	up to 100 mm
Used gas fuel:	Acetylene (A)
	Propane-butane (P)
	Methane (M)
	MAF
Cutting torch weight –	no more than 0.72 kg
Cutting torch length –	no more than 500 mm

Designation	Hose	Order No.
"DONMET" 150 A	9/9	150.000.15
"DONMET" 150 A	6/6	150.000.19
"DONMET" 150 P	9/9	150.000.12
"DONMET" 150 P	6/6	150.000.16
"DONMET" 150 M	9/9	150.000.13
"DONMET" 150 MAF	9/9	150.000.14

R1, "DONMET" 143

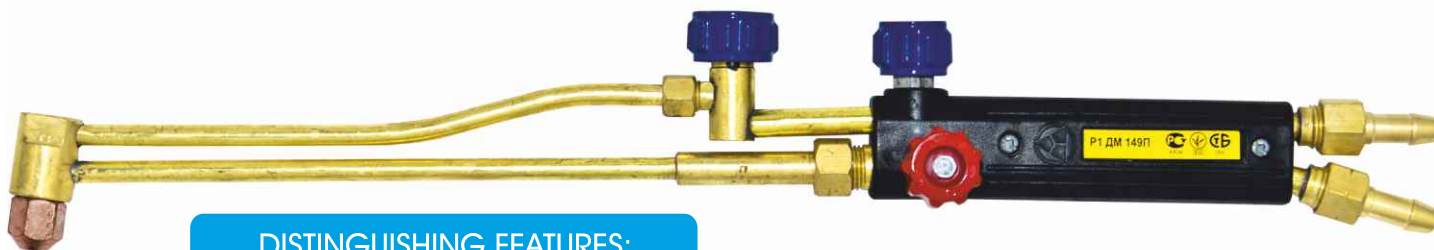


DISTINGUISHING FEATURES:
MULTI PURPOSE!
Acetylene and propane-butane!

Cutting thickness –	up to 100mm
Used gas fuel:	Acetylene (A) and Propane-butane (P)
Cutting torch weight –	no more than 0.75 kg
Cutting torch length –	no more than 500 mm

Designation	Hose	Order No.
"DONMET" 143 A/P	6/6	143.000.00
"DONMET" 143 A/P	9/9	143.000.01

R1, "DONMET" 149



DISTINGUISHING FEATURES:
For work in hard-to-reach places!

Cutting thickness –	up to 100 mm
Used gas fuel:	Propane-butane (P)
Cutting torch weight –	no more than 0.75 kg
Cutting torch length –	no more than 515 mm

Designation	Hose	Order No.
"DONMET" 149 P	6/6	149.000.05
"DONMET" 149 P	9/9	149.000.07

Inset cutting torch type RV1

RV1, "DONMET" 147



Inset cutting torch for welding torch is purposed for hand oxy-gas parting cutting of steel up to 100 mm thick while repairing and erecting works during welding parts fitting (at transition from welding to cutting and vice versa).

Inset cutting torch is connected to the welding torch handle instead of the tip.

It's used for torch handles of DONMET torches:
G2 Order No. 225.000.00;
G2 Order No. 273.000.04;
G3U Order No. 247.000.00.

Used gas fuel:	Acetylene (A) and Propane-butane (P)
Tip weight –	no more than 0.4 kg
Tip length –	no more than 260 mm

Designation	Order No.
"DONMET" 147 A	147.000.04
"DONMET" 147 P	147.000.05

R3, "DONMET" 300

TREKHSOTKA®
(Trademark)

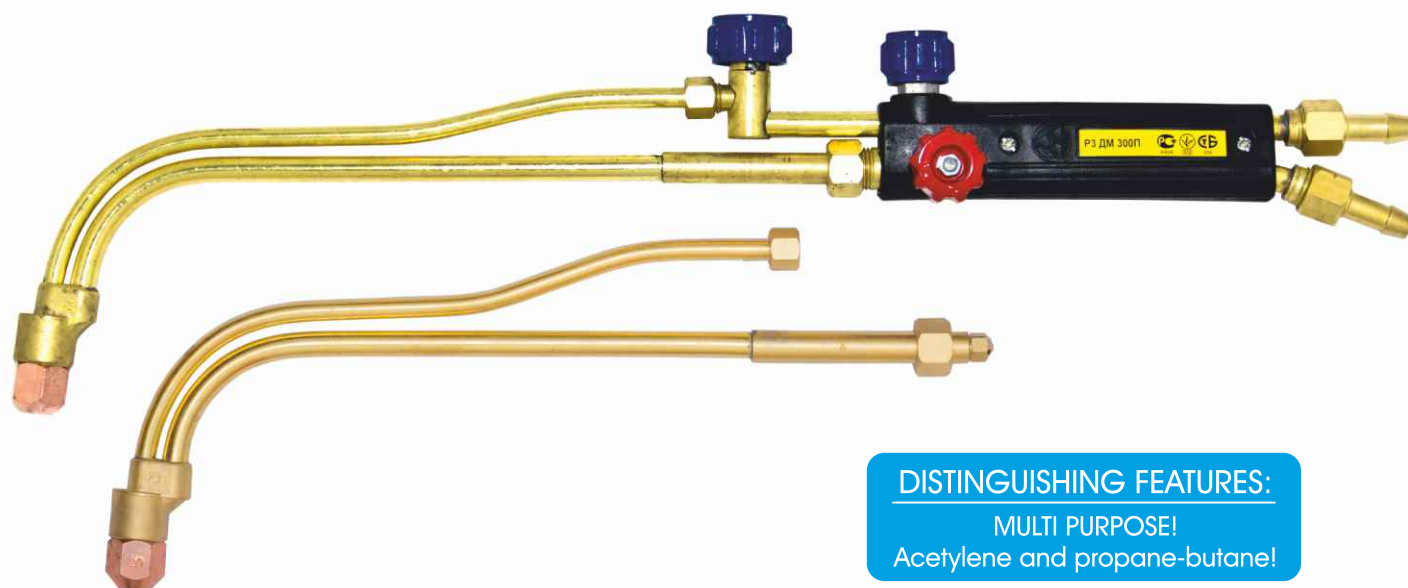


DISTINGUISHING FEATURES:
LIGHT AND HIGH-POWER
CUTTING TORCH

Cutting thickness –	up to 300 mm
Used gas fuel:	Acetylene (A)
	Propane-butane (P)
Head thread Ø –	G 3/8"
Cutting torch weight –	no more than 0.8 kg
Cutting torch length –	no more than 520 mm

Designation	Hose	Order No.
"DONMET" 300 A	9/9	300.000.00
"DONMET" 300 P	9/9	300.000.01

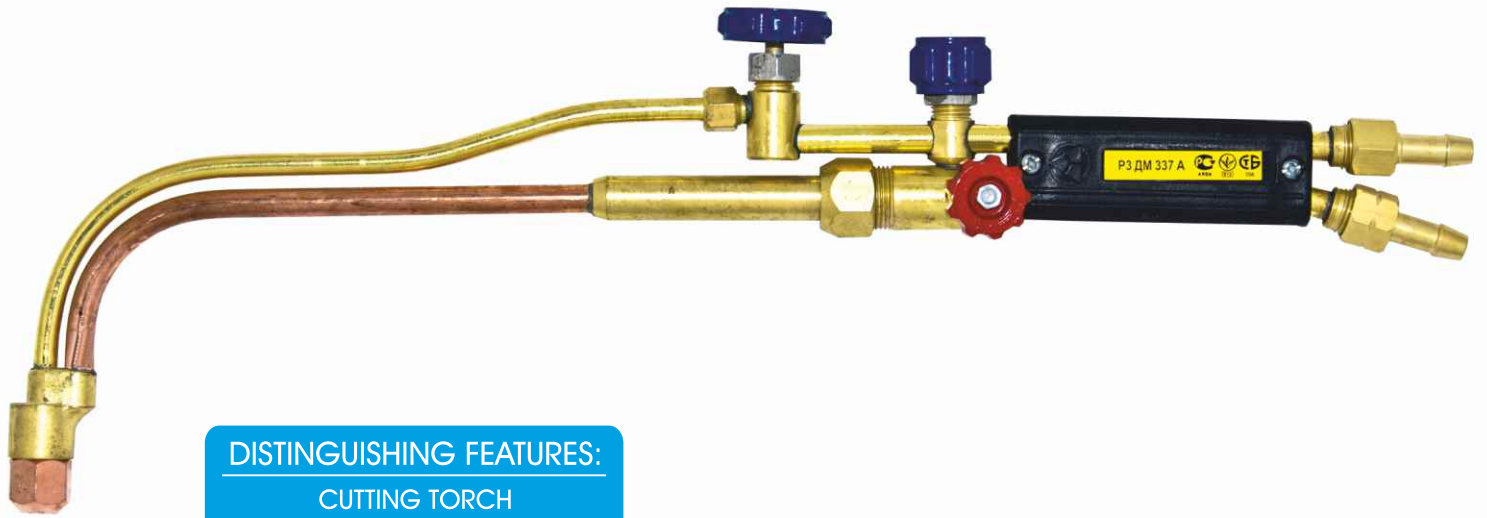
R3, "DONMET" 301



DISTINGUISHING FEATURES:
MULTI PURPOSE!
Acetylene and propane-butane!

Cutting thickness –	up to 300 mm
Used gas fuel:	Acetylene (A)
	Propane-butane (P)
Cutting torch weight –	no more than 0.8 kg
Cutting torch length –	no more than 520 mm

Designation	Hose	Order No.
"DONMET" 301 A/P	9/9	301.000.00



DISTINGUISHING FEATURES:
CUTTING TORCH
FOR PROFESSIONALS!



Cutting thickness –	up to 300 mm
Used gas fuel:	Acetylene (A)
	Propane-butane (P)
	Methane (M)
	Coke gas (C)
Cutting torch weight –	no more than 0.9 kg
Cutting torch length –	no more than 507 mm

Designation	Hose	Order No.
"DONMET" 337 A	9/9	337.000.30
"DONMET" 337 P	9/9	337.000.31
"DONMET" 337 M	9/9	337.000.32
"DONMET" 337 C	9/9	337.000.50

R1, "DONMET" 142U



Cutting thickness –	up to 100 mm
Used gas fuel:	Propane-butane (P)
Cutting torch weight –	no more than 0.85 kg
Cutting torch length –	no more than 750 mm

Designation	Hose	Order No.
"DONMET" 142U	9/9	142.000.05

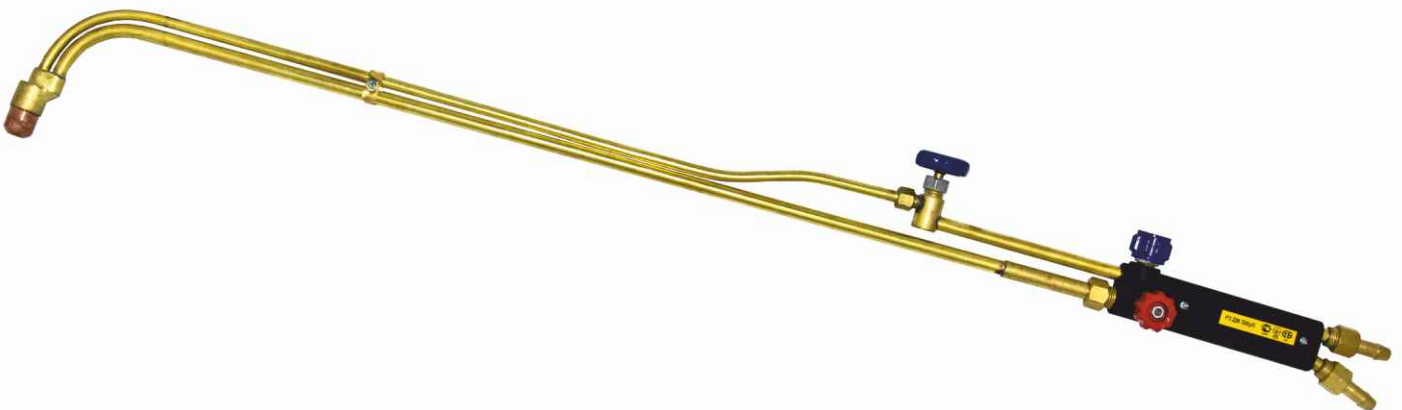
R1, "DONMET" 150U



Cutting thickness –	up to 100 mm
Used gas fuel:	Propane-butane (P)
Cutting torch weight –	no more than 0.80 kg
Cutting torch length –	no more than 1000 mm

Designation	Hose	Order No.
"DONMET" 150U	9/9	150.000.21

R3, "DONMET" 300U



Cutting thickness –	up to 300 mm
Used gas fuel:	Propane-butane (P)
Cutting torch weight –	no more than 1.15 kg
Cutting torch length –	no more than 960 mm

Designation	Hose	Order No.
"DONMET" 300U P	9/9	300.000.11

R3, "DONMET" 337U



DISTINGUISHING FEATURES:
CUTTING TORCH
FOR PROFESSIONALS!

Cutting thickness –	up to 300 mm
Used gas fuel:	Propane-butane (P) Methane (M) Coke gas (C)
Cutting torch weight –	no more than 1.22 / 1.22 / 1.07 kg
Cutting torch weight –	no more than 1000 / 1000 / 750 mm

Designation	Hose	Length, mm	Order No.
"DONMET" 337U P	9/9	1000	337.000.37
"DONMET" 337U M	9/9	1000	337.000.38
"DONMET" 337U C	9/9	750	337.000.39

R3, "DONMET" 341



Cutting thickness –	up to 300 mm
Used gas fuel:	Propane-butane (P) Methane (M)
Cutting torch weight –	no more than 1.3 kg
Cutting torch weight –	no more than 1100 mm

DISTINGUISHING FEATURES:
IDEAL FOR METAL SCRAP CROPPING



Designated for flame scarfing of metal surface defects at steel forgings, ingots, shaped castings.

Grasp width –	up to 30 mm
Grasp depth –	up to 10 mm
Used gas fuel:	Methane (M)
Cutting torch weight –	no more than 1.5 kg
Cutting torch length –	no more than 1500 mm

Designation	Hose	Order No.
a) "DONMET" 341 P	9/9	341.000.00
a) "DONMET" 341 M	9/9	341.000.05
b) "DONMET" 341-10 M	9/9	341.000.10

Increased reliability CUTTING TORCHES type R3

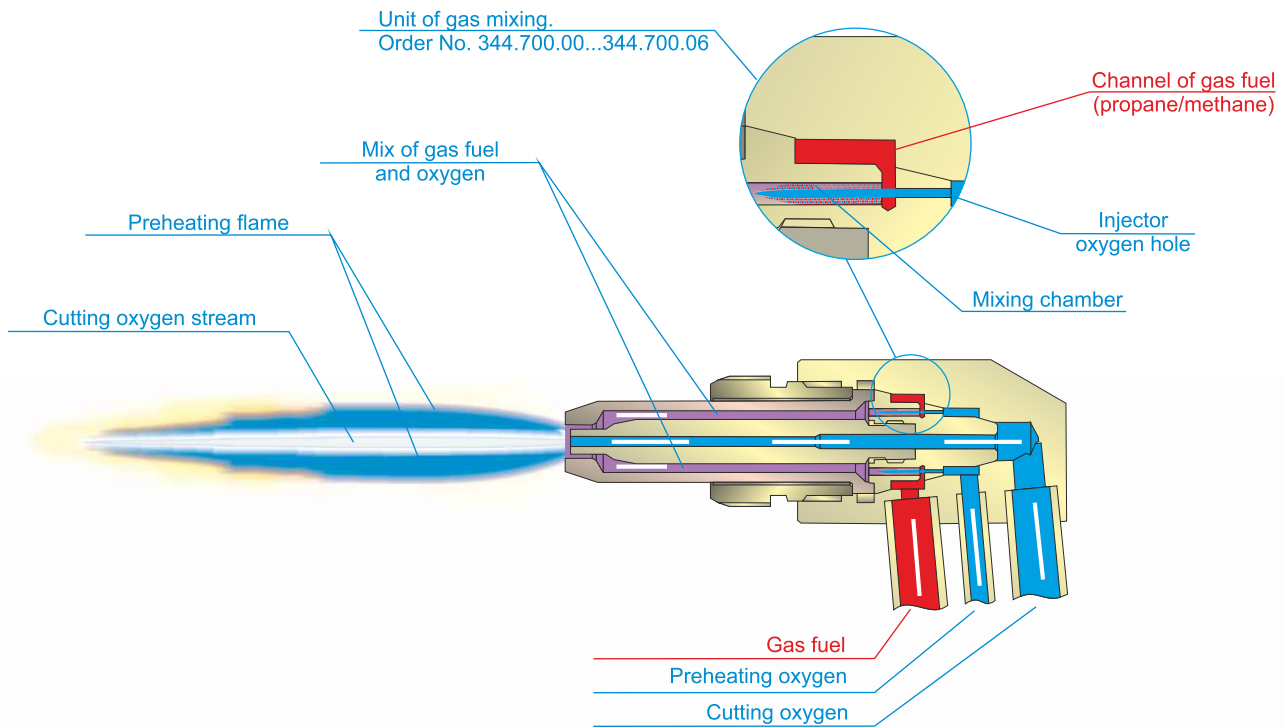


Increased reliability cutting torches type R3 are purposed for hand oxy-gas parting cutting of low-carbon steel up to 300 mm thick.

THE MAIN ADVANTAGES:

- increased safety while cutting due to in-nozzle gas mixing, 100% resistance to flashbacks;
- flexibility – possibility of using import analogues of nozzles;
- quick transition to another type of gas fuel. It's just required to replace the nozzle.

HEAD OF CUTTING TORCH WITH INCREASED RELIABILITY



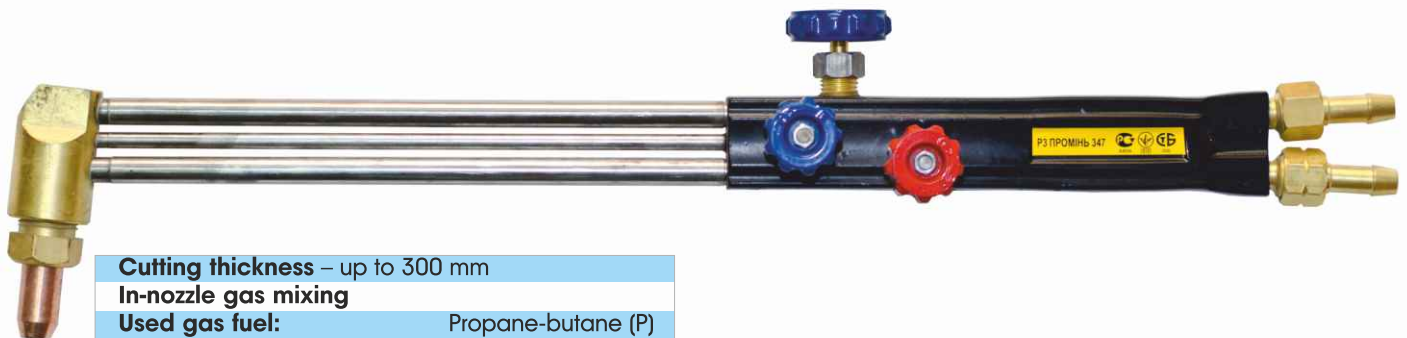
R3, "PROMIN" 344



Cutting thickness – up to 300 mm
In-nozzle gas mixing
Used gas fuel: Propane-butane (P)
Methane (M)
Acetylene (A)
Hose nominal width – 9/9
Cutting torch weight without nozzle – 1.1 / 1.5 kg
Cutting torch length – no more than 515 / 915 mm

Designation	Length, mm	Order No.
"PROMIN" 344 (with lever KR)	515	344.000.10
"PROMIN" 344 (with lever KR)	915	344.000.12

R3, "PROMIN" 347



Cutting thickness – up to 300 mm
In-nozzle gas mixing
Used gas fuel: Propane-butane (P)
Methane (M)
Acetylene (A)
Hose nominal width – 9/9
Cutting torch weight without nozzle – 1.1 / 1.4 kg
Cutting torch length – no more than 515 / 915 mm

Designation	Length, mm	Order No.
"PROMIN" 347 (with valve KR)	515	347.000.00
"PROMIN" 347 (with valve KR)	915	347.000.02

SPECIAL CUTTING TORCHES OF INCREASED POWER for metallurgy



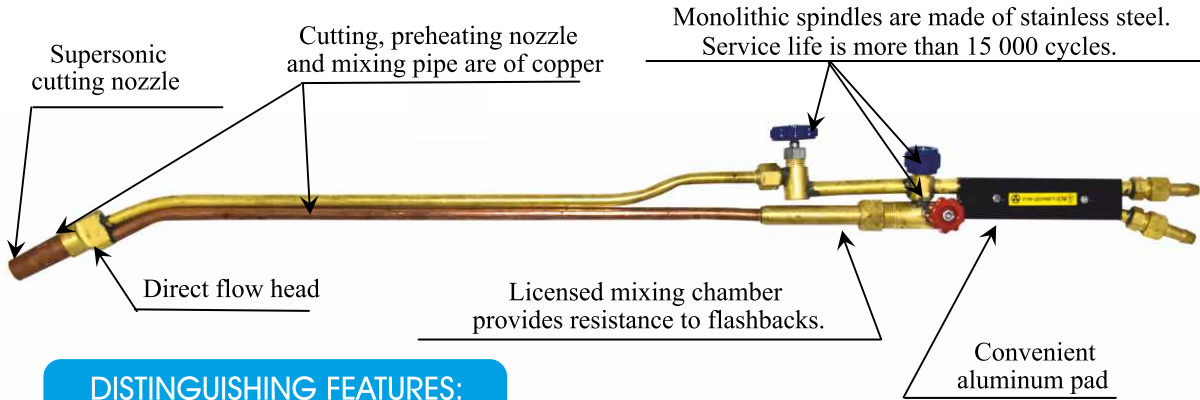
Unique cutting torches for special purposes!

Cutting torches of the series have received wide application at large iron and steel plants of Ukraine and Russia. The torches gained a reputation as high-power, reliable and safe equipment for metallurgists.

GENERAL USE:

- for parting cutting of low-carbon steel up to 500 mm thick and more;
- for the metal surface scarfing from flaws on steel ingots, shaped castings and rolled ferrous metal products.

RPM, "DONMET" 536 "Super DONMET"



DISTINGUISHING FEATURES:

**SUPERPOWER CUTTING TORCH
SUPERPOWER CUTTING NOZZLE**

Designated for hand oxy-gas parting cutting of scrap metal, cutting of low-carbon steel casting heads.

Cutting thickness –	up to 500 mm
Used gas fuel:	Methane (M)
Cutting torch weight –	no more than 1.4 kg
Cutting torch length –	no more than 950 mm

It's used at the following enterprise:

PJSC "Novokramatorsky Mashinostroitelny Zavod"

Designation	Hose	Order No.
"DONMET" 536	9/9	536.000.00

RPM, "DONMET" 502



DISTINGUISHING FEATURES:

**HIGH-POWER PROFESSIONAL CUTTING TORCH
FOR METALS CUTTING AND GOUGING!**

- more compact (height reduced for 15%);
- more reliable (the valve serviceability is increased up to 20000 cycles);
- more convenient (possibility of smooth incut due to improved valve design).

Cutting thickness –	up to 500 mm
Used gas fuel:	Methane (M) Propane-butane (P)
Cutting torch weight –	no more than 1.97 kg
Cutting torch length –	no more than 1300 mm

It's used at the following enterprises:

CJSC "Donetssteel - Iron and Steel Works"
JSC "Zaporozhsteel"
PJSC "ArcelorMittal Kryviy Rih"
PJSC "Mariupol Integrated Iron and Steel Works named after Ilych"
PJSC "Dneprovsky Integrated Iron and Steel Works named after Dzerzhinsky"
PJSC "Alchevsk Iron and Steel Works" as well as at the plants on the territory of Russian Federation

Designation	Hose	Order No.
"DONMET" 502 M	9/9	502.000.20
"DONMET" 502 P	9/9	502.000.21

RPM, "DONMET" 503 (smooth out)



Designated for surface defects scarring on steel ingots, shaped castings and rolled ferrous metal products. It can be used for flame gouging of separate grooves and surfaces.

Grasp width –	up to 40 mm
Grasp depth –	up to 10 mm
Used gas fuel:	Methane (M)
Cutting torch weight –	no more than 3.0 kg
Cutting torch length –	no more than 2000 mm

It's used at the following enterprise:

CJSC "Donetssteel" - Iron and Steel Works"
JSC "Zaporozhsteel"
PJSC "ArcelorMittal Kryviy Rih"
PJSC "Mariupol Integrated Iron and Steel Works named after Ilych"

Designation	Рyкaв	№ зaкaзa
"DONMET" 503 (smooth out)	9/9	503.000.10

Delivery terms should be agreed.

FLUX CUTTING SET (KFR)



Autogenous welding equipment plant DONMET has already developed and now has been manufacturing flux-oxygen cutting set.

Flux-oxygen cutting is used for metals which can't be cut by ordinary gas cutting method. Particularly they include high-chromium and chromium-nickel heat-resistant steel, grey iron and non-ferrous metals and alloys.

Flux-oxygen cutting process is based on injection in reaction zone the powdered flux, generating additional heat at cutting and making a required oxides fluxing. For example, refractory chromium oxide Cr_2O_3 – during high-chromium steel cutting, silicon oxide SiO_2 - during cutting of iron etc.

Distinguishing feature of the flux injection cutting set (954.000.00) is using of gas fuel as a flux carrier gas. As well as flux consumption is reduced at iron cutting by 1.5 - 2.0 times against analogues.

Designated for cutting of high-chromium, chromium-nickel, heat-resistant, stainless steel, grey iron.

Used flux: based on small-granular iron powder of grade PZh.

Flux carrier gas: propane-butane, methane.



TECHNICAL CHARACTERISTIC

Metal cutting thickness –	up to 200 mm
Maximum consumption , m ³ /hour:	
oxygen	22.5
natural gas (methane)	3.1
propane-butane	1.8
Working pressure of gases, kgf/cm ² :	
oxygen	6 - 8
flux carrier gas	0.1 - 0.4
Cutting torch weight –	no more than
	0.97 / 1.27 / 2.1 kg
Cutting torch length –	up to 520 / 920 / 1500 mm

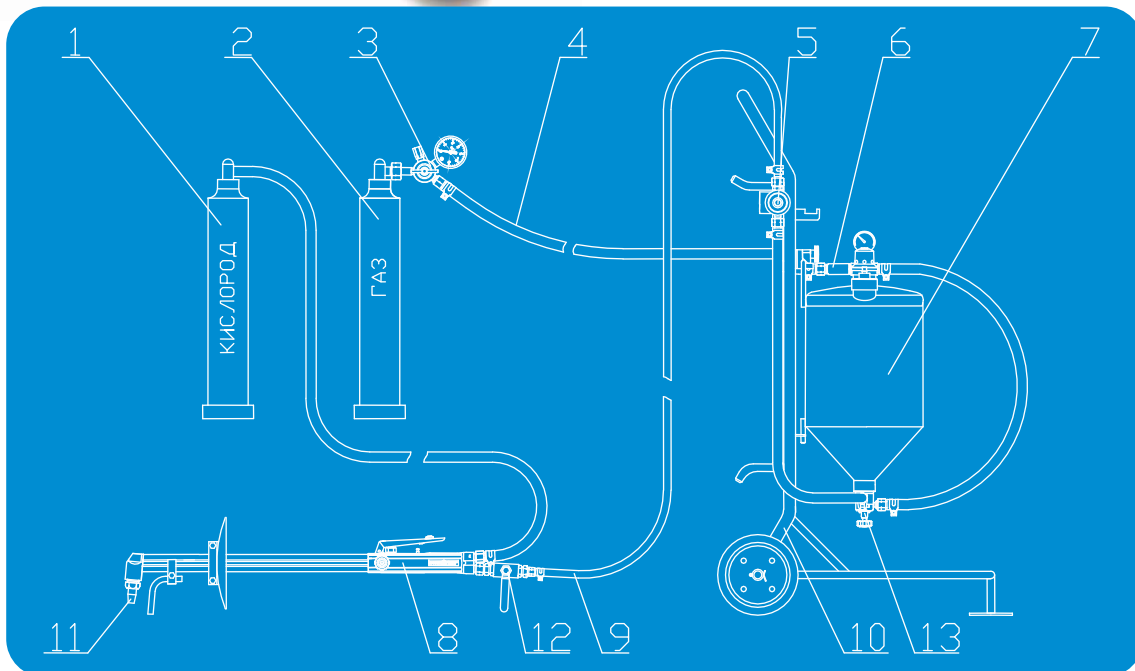
SET OF SUPPLY

1) Cart
2) Flux supplier
3) Safety lever for KFR
4) Cutting torch R3 "KFR" 352
5) Pressure regulator BPO-5DM
6) Nozzles FRM 1, 3 and 5
7) Mesh (cells 0,2 mm and 0,4 mm)
8) Bursting disk
9) Instrument for twisting of mixing unit and cutting nozzle (special-purpose wrench, nut, case)
10) Technical documents

Designation	Order No.
KFR	954.000.00

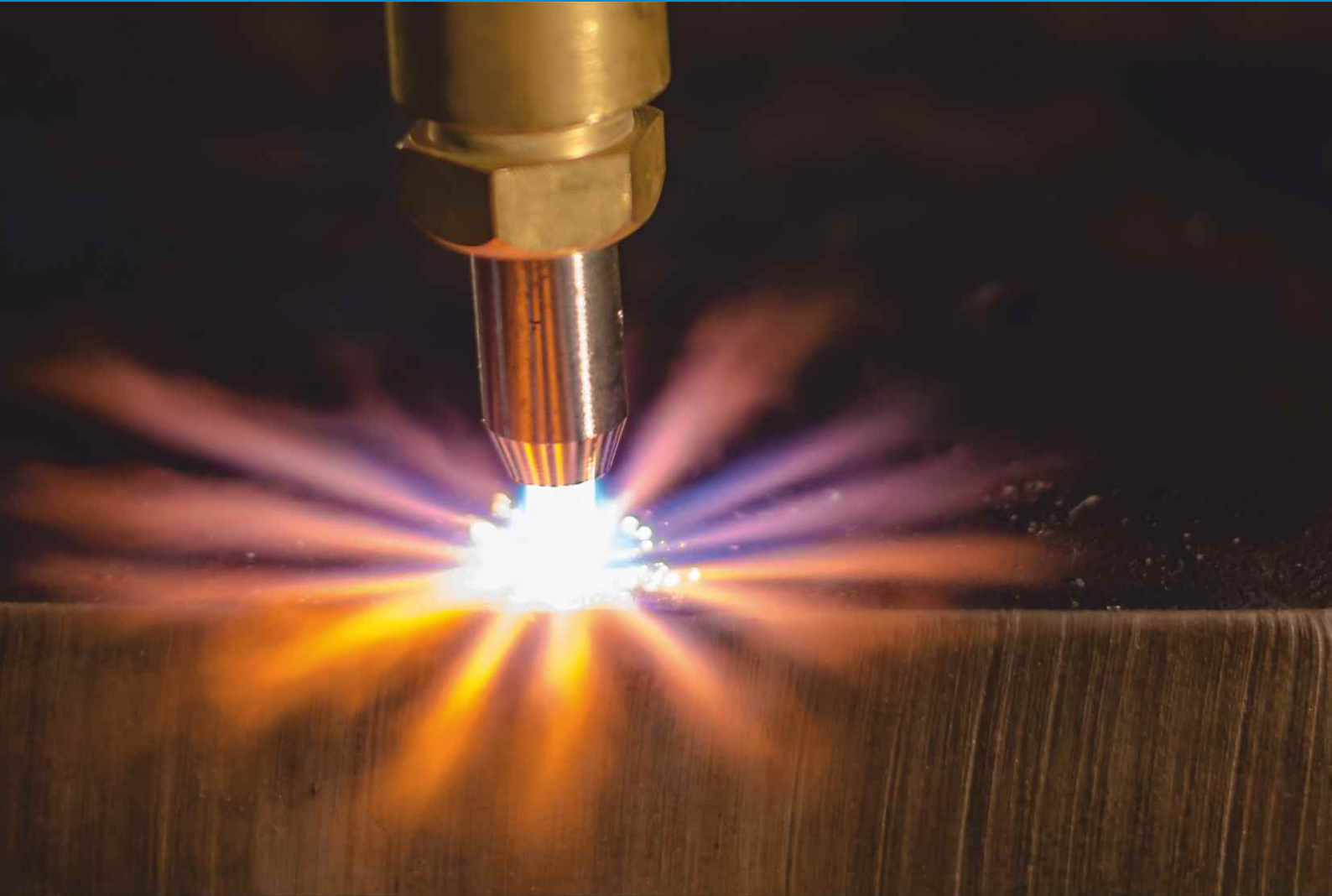
Delivery terms should be agreed.

PRINCIPAL SCHEME OF KFR



- 1 – oxygen cylinder; 2 – gas fuel cylinder; 3 – pressure regulator BPO-5DM;
 4 – gas hose D9 with slip nuts; 5 – safety lever for KFR; 6 – flashback arrester;
 7 – flux supplier; 8 – oxy-gas cutting torch; 9 – hose D6; 10 – cart; 11 – gas mixing nozzle;
 12 – ball valve; 13 – mixing device;

MACHINE CUTTING TORCHES RM AND PORTABLE GAS-CUTTING MACHINES



Machine cutting torches RM are designated for automatic cutting on movable and stationary gas-cutting units.

Movable gas-cutting machines are purposed for parting cutting of sheet metal and pipes, providing possibility of edges preparation for welding.

THE MAIN ADVANTAGES:

Certified nozzle “Snezhinka” is used for machine cutting torches RM 345 and RM 357, as well as in movable gas-cutting units, providing some advantages as follows:

- reduction of oxygen and gas fuel consumption from 5 to 15% (depending on the cutting thickness);
- reduction of time for penetration (on average by 20%);
- increase of cutting speed (up to 30%);
- reduction of cutting width (reduction of metal losses up to 20%).

RM, "DONMET" 345

for gas-cutting machines of Poland, Czech Republic, Italy, "Messer Greisheim" Germany; "SAF" France; "ASHNM" USA; "WESCOL" Great Britain; "Tanaka" Japan



Designed for machine cutting by nozzles with in-nozzle gas mixing.

Inlet connection thread diameter:		
	(9/6/9)	(6/6/6)
cutting oxygen:	3/8"	M14x1.5
preheating oxygen:	1/4"	M14x1.5
gas fuel:	3/8"LH	M14x1.5LH
Cutting torch head thread:	M22x1.5	
Socket for nozzle:	taper angle 30°	
Cutting torch weight	1.35 kg	

Cutting thickness:	3 - 300 mm
Used gas fuel:	Propane-butane (P) Methane (M)
Quantity of inlet connections:	3

Recommended additional configuration:
Flashback arresters see (page 39)

Designation	Hose	Order No.
"DONMET" 345	9/6/9	345.000.00
"DONMET" 345-01	6/6/6	345.000.01

NOZZLE "Snezhinka"®

Your step to energy saving!!!

Propane/methane gas mixing nozzle for machine cutting torches



Gas mixing nozzles "Snezhinka" are designed for cutting torches of gas-cutting machines using methane or propane-butane.

Nozzles can work with a balanced-pressure cutting torches made by the following companies: "DONMET", Ukraine; «MESSER GREISHEIM», Germany; «SAF», France; «ASHNM», USA; «WESCOL», Great Britain; some CIS companies, Poland, Czech Republic, Italy, «Tanaka» Japan.



Marking	Cut steel thickness, mm	Oxygen (pressure, kgf/cm ²)			Propane / methane (pressure, kgf/cm ²)	Cutting speed, mm/min	Order No.
		cutting	heating	Propane Methane			
0PM	3-10	3.0	2.0	2.0	0.2-0.5	640-550	345.300.20
1PM	10-15	4.0	2.0	2.0	0.2-0.5	550-480	345.300.21
2PM	15-25	5.0	2.0	2.0	0.2-0.5	480-400	345.300.22
3PM	25-50	6.0	2.0	2.0	0.2-0.5	400-320	345.300.23
4PM	50-100	6.0	2.0	2.0	0.2-0.5	320-230	345.300.24
5P	100-200	7.5	2.0	2.0	0.2-0.5	260-170	345.300.25
6P	200-300	8.5	2.0	2.0	0.2-0.5	180-100	345.300.26
5M	100-200	7.5	2.0	2.0	0.2-0.5	260-170	345.300.27
6M	200-300	8.5	2.0	2.0	0.2-0.5	180-100	345.300.28

LIQUID FUEL CUTTING TORCHES TYPE RK AND TANKS FOR THEM

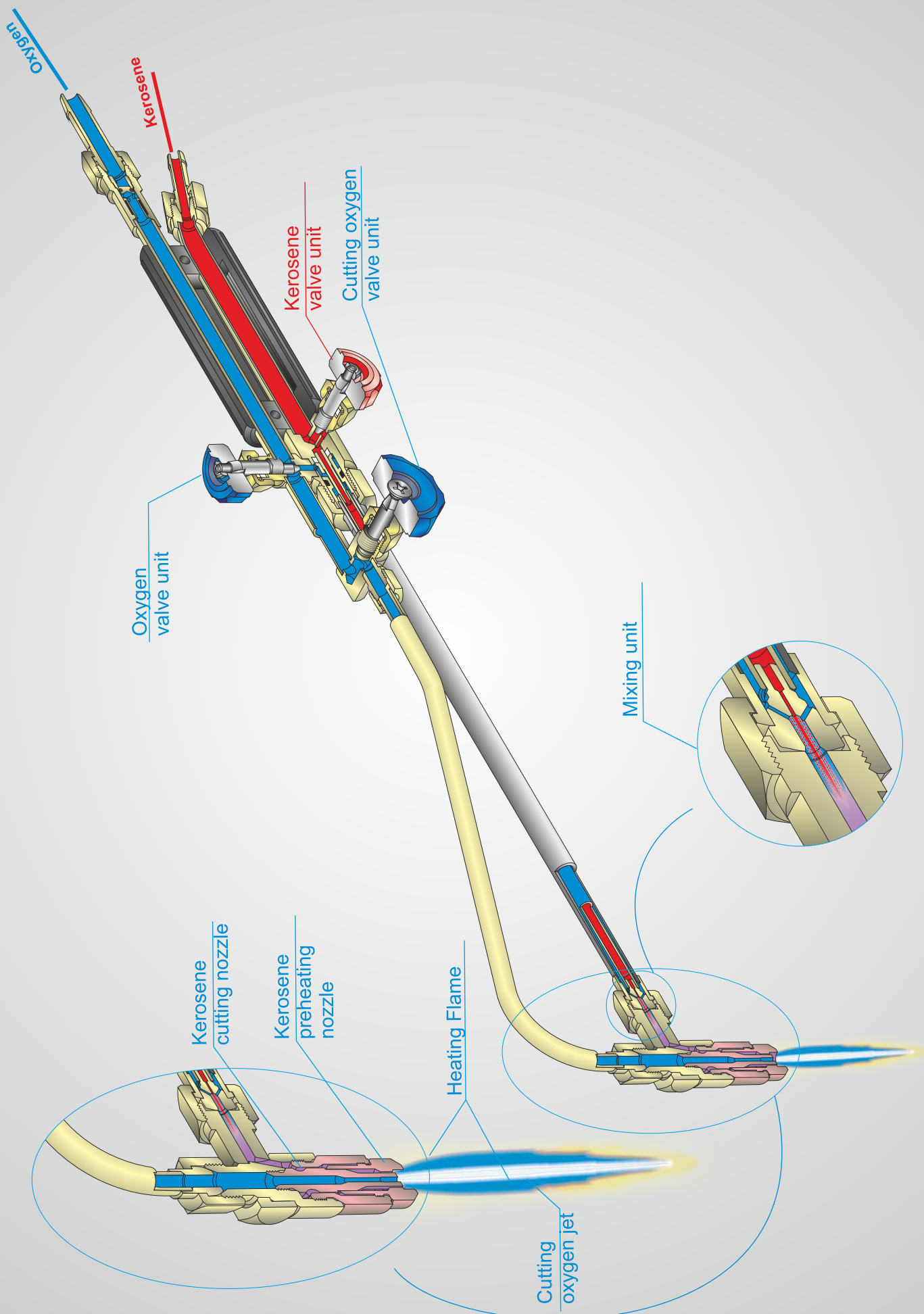


Liquid fuel cutting torches type RK are designed for hand parting cutting of low-carbon steel from 3 to 300 mm thick.

MAIN ADVANTAGES:

- absence of heating flame;
- absence of asbestos winding;
- full flashing of preliminary pulverized fuel;
- easy maintenance similar to the same of ordinary gas cutting torch;
- transition to working mode for 20 seconds;
- 100% resistance to flashback;
- welder of any qualification can work with it.

PRINCIPAL DIAGRAM FOR CUTTING TORCHES TYPE RK



RK 300 "VOGNIK" 181 (kerosene blow torch)

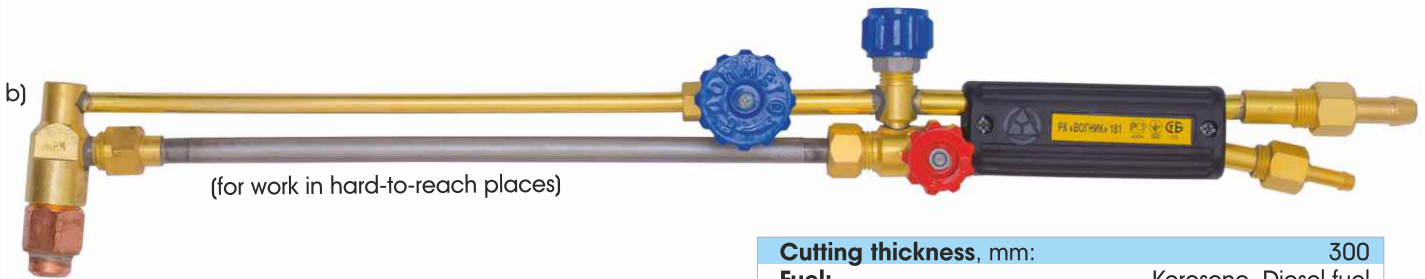
BOBUKH®
cutting torch
(Trademark)



DISTINGUISHING FEATURES:

THE MOST ADVANCED KEROSENE BLOW TORCH

- ▶ Works at freezing temperature up to -25°C
- ▶ Mode change 15-30 sec.
- ▶ 100% resistance to flashback
- ▶ Weight – 0.84 kg
- ▶ Without asbestos
- ▶ Complete fuel combustion



Cutting thickness, mm:	300
Fuel:	Kerosene, Diesel fuel
Cutting torch weight, no more than, kg	- see table ↓
Cutting torch length, no more than, mm	- see table ↓



Video!
Presentation of
"VOGNIK" 181



Video!
Training trailer
"How to switch on
"VOGNIK 181"

Designation	Fuel	Length, mm	Weight, kg	Order No.
"VOGNIK" 181 (a)	Kerosene	555	0.96	181.000.00
"VOGNIK" 181 (a)	Diesel fuel	555	0.96	181.000.02
"VOGNIK" 181 (a)	Kerosene	1055	1.2	181.000.04
"VOGNIK" 181 (b)	Kerosene	552	0.92	181.000.10
"VOGNIK" 181 (b)	Diesel fuel	552	0.92	181.000.12
"VOGNIK" 181 (b)	Kerosene	1050	1.2	181.000.14
"VOGNIK" 181 (b)	Diesel fuel	1050	1.2	181.000.16

Recommended additional configuration

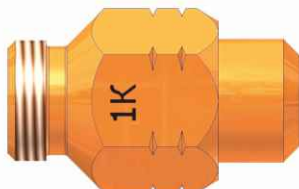
Kerosene filter



It's designed to prevent entry of clogging particles to cutting torch with a fuel.

Designation	Order No.
Kerosene filter	608.000.00

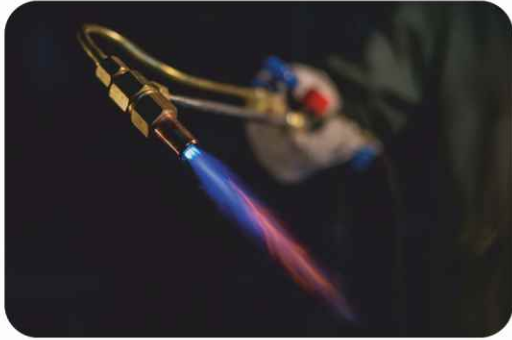
Nozzle "Zima"



Designated for steady operation of kerosene blow torch within the temperature range from 0 to -30 degrees.

Designation	Order No.
Nozzle "Zima" (kerosene)	181.500.04

RK 200 "VOGNIK" 182 (gasoline blow torch)



DISTINGUISHING FEATURES:

THE MOST ADVANCED GASOLINE BLOW TORCH

- ▶ Works at freezing temperature up to -25°C
- ▶ Mode change 15-30 sec.
- ▶ 100% resistance to flashback
- ▶ Weight – 0.84 kg
- ▶ Without asbestos
- ▶ Complete fuel combustion
- ▶ 75% of parts are interchangeable with kerosene blow torch "VOGNIK 181"



Video!
Presentation of
"VOGNIK" 182

Cutting thickness:	up to 200 mm
Fuel:	gasoline A-80; A-92
Cutting torch weight, no more than	0.84 kg
Cutting torch length, no more than	555 mm

Designation	Order No.
"VOGNIK" 182	182.000.00

LIQUID FUEL CYLINDER

Designed for supply of autogenous welding equipment, operating with liquid fuel (kerosene and other petroleum refinery products).

Volume capacity	8 l
Working pressure:	0.05(0.5) - 0.3(3) MPa (kgf/cm ²)
Cylinder weight, no more than	5 kg



Designation	Hose	Order No.
a) BG-08DM	6	935.000.00

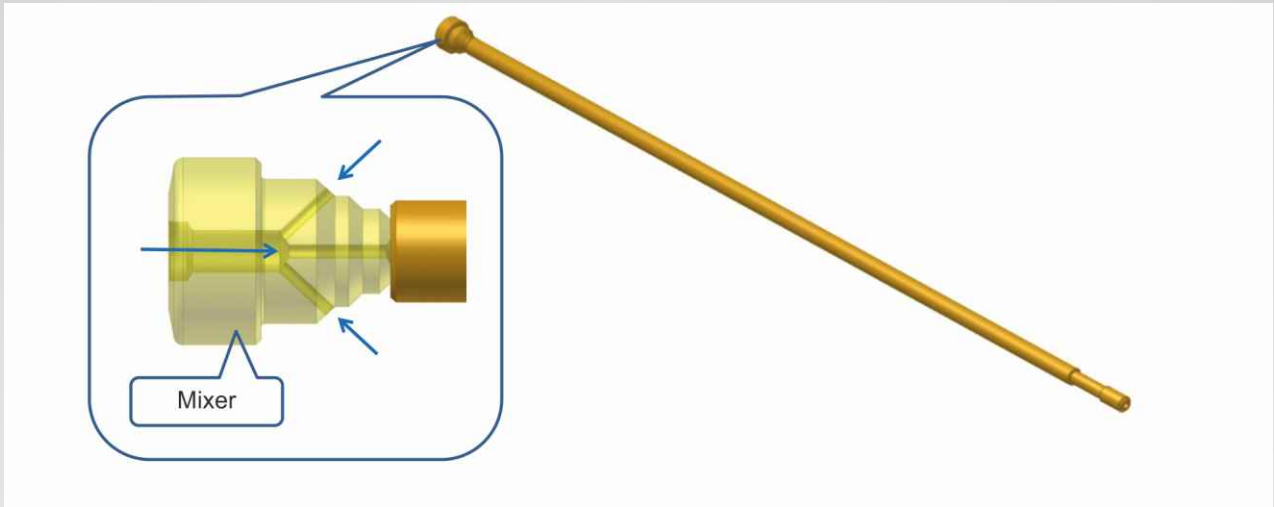
Configuration:
Integral shutoff valve, gauge, flashback arrester.

Designation	Hose	Order No.
b) BG-08-1DM	6	975.000.00

Configuration:
Integral shutoff valve, pressure indicator, flashback arrester, safety valve.

1. Why is the flame pulsating?

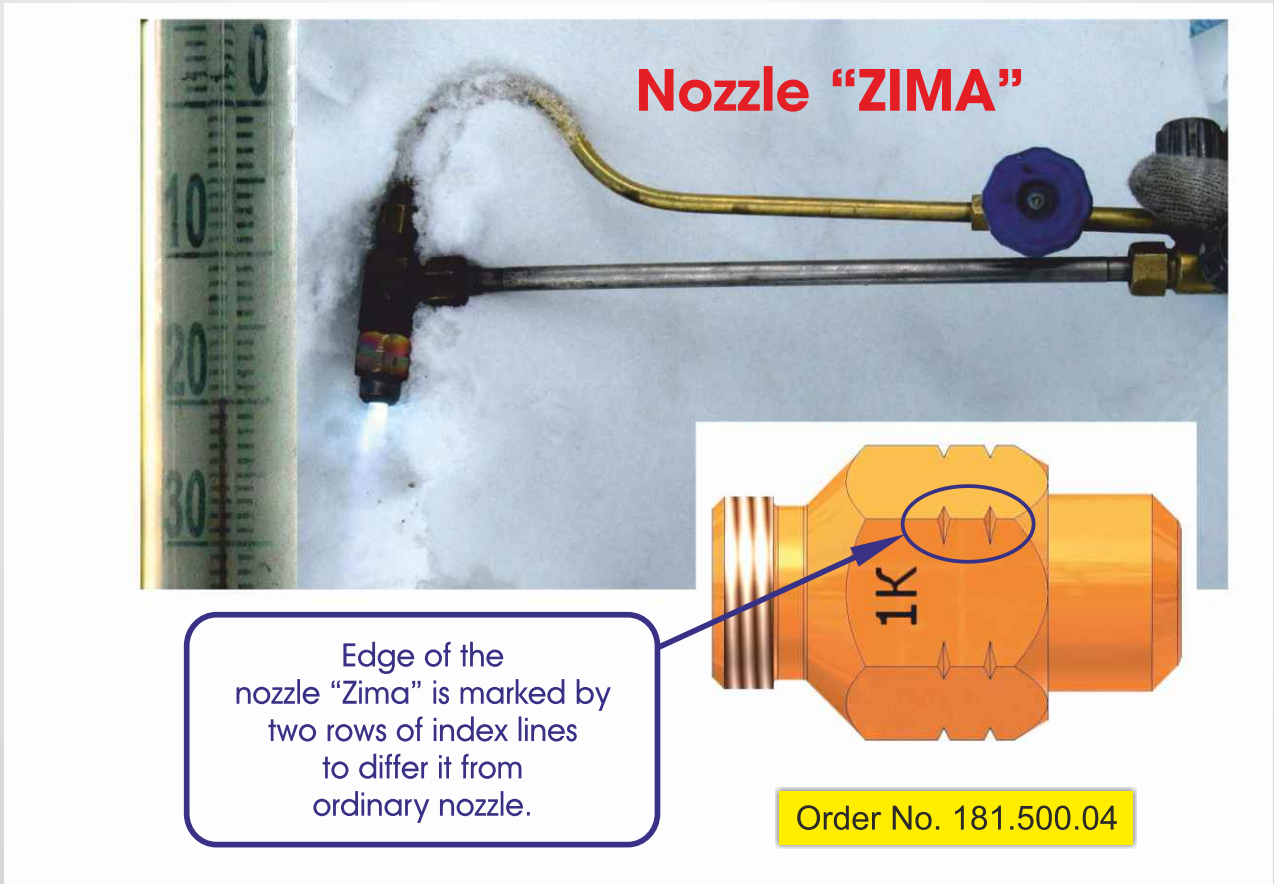
The mixer is clogged. It usually happens because of chips, scale, salt oxides appeared after galvanic treatment, sharp edges. What should we do? To clean out the mixer channels by copper rod with obligatory subsequent purging.



2. There is not enough nozzle heating at freezing temperature.

Use the preheating nozzle "ZIMA".

It works steadily at the temperature range from 0 to -30°.



Kerosene blow torch RK 300 "VOGNIK" 181 equipped with preheating nozzle "ZIMA" has the following advantages:

- **Steady operation from 0 to -30°C**
- **100% resistance to flashback**


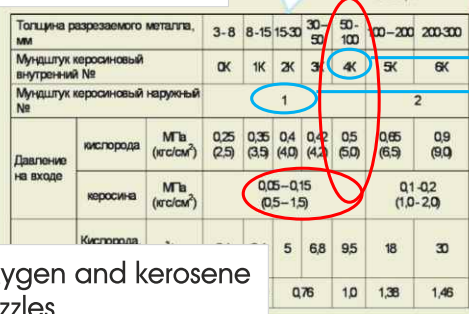

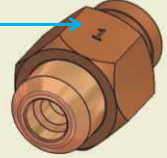
3. Why does the fuel not evaporate?

The fuel should be clean (without water, oils and diesel oil). Energy carriers (oxygen, kerosene) pressure and flame core size should correspond to the certificate requirements (see section 2 of “Technical characteristics” and point 6.2 of section 6 “Operation regulations” of the certificate”).

1) It is strongly recommended to read the operation manual

2) To precise cutting and preheating nozzles due to the metal thickness.

3) To determine oxygen and kerosene pressure for the nozzles.

Толщина разрезаемого металла, мм		3-8	8-15	15-30	30-50	50-100	100-200	200-300
Мультижгуток керосиновый внутренний №		0К	1К	2К	3К	4К	5К	6К
Мультижгуток керосиновый наружный №		1			2			
Давление на входе	кислорода МПа (кг/см²)	0,25 (2,5)	0,35 (3,5)	0,4 (4,0)	0,42 (4,2)	0,5 (5,0)	0,65 (6,5)	0,9 (9,0)
	керосина МПа (кг/см²)	0,05-0,15 (0,5-1,5)				0,1-0,2 (1,0-2,0)		
Кислорода		5	6,8	9,5	18	30		
		0,76	1,0	1,38	1,46			

Operation manual: point 6.2 of part 6 “Service regulations”
 ...Attention!

Don't make final adjustment of the cutting torch while flame core inside the preheating nozzle is burning. This will lead to overheating. If adjustment is correct the heating flame core overlaps the preheating nozzle end for 3-5mm.

4. Is it possible to work without oxygen pressure regulator (from network)?

It's not recommended to work without pressure regulator, because the network pressure does not always correspond to the certificate requirements. As a rule it's higher. Oxygen excess will lead to the nozzle cooling and the fuel will not be heated enough for flashing.

What do you need to do?

1) To reduce oxygen quantity with a valve KP



2) To set flame core length due to flow rate



Chief Specialist on Autogenous Welding Equipment
Nikolay Bobukh
 answered the questions.
 tel.: +38 (0626) 48-55-28, Skype: donmetlab

GAS WELDING TORCHES TYPE G2, G3 AND G3U

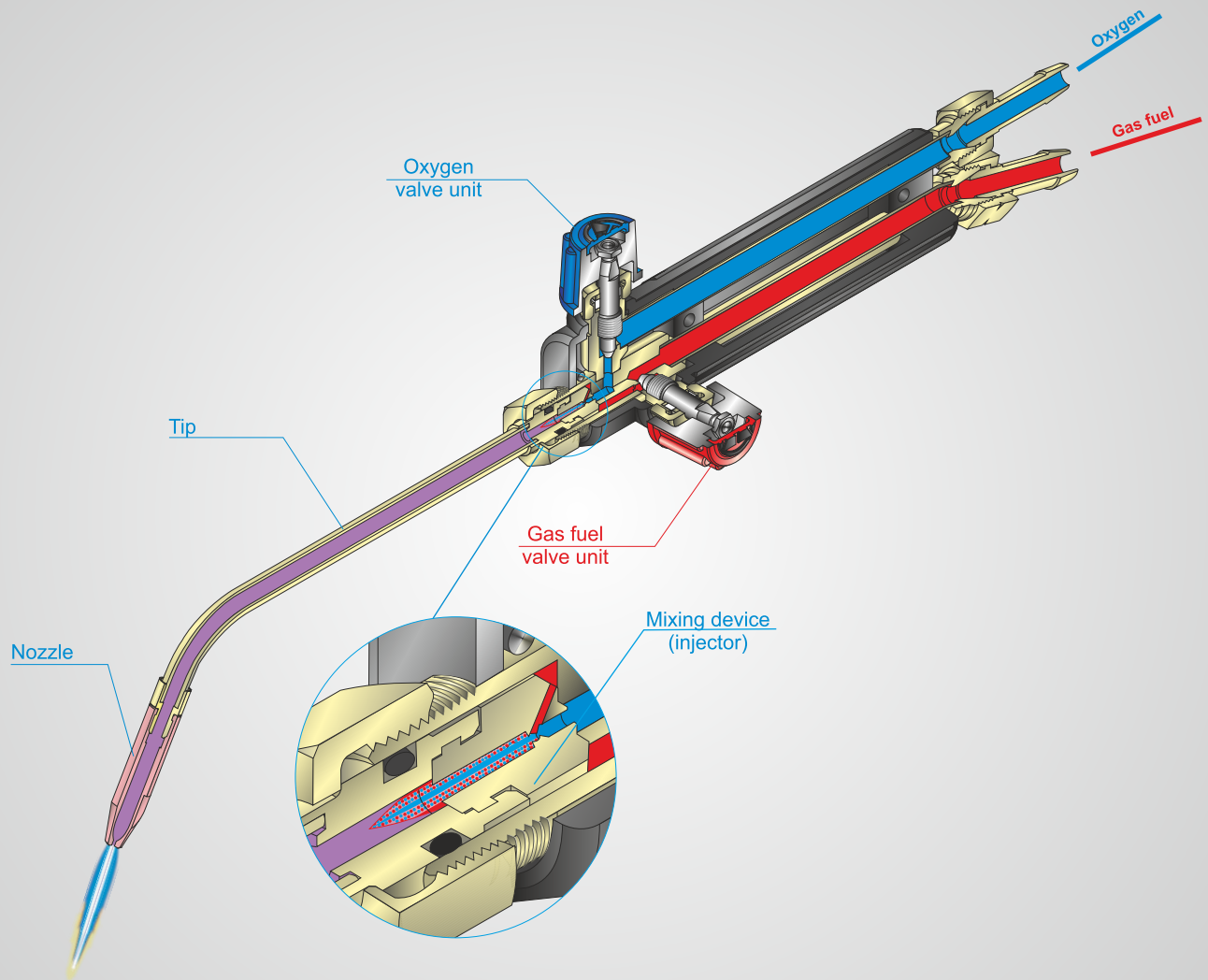


Gas welding torches type G2, G3 and G3U are designated for hand gas-oxygen welding, brazing, heating and other types of metal flame processing.

THE MAIN ADVANTAGES:

- high reliability and safety;
- easy to use. Allow to work in open air conditions and in hard-to-reach places;
- only copper nozzles are used. That provides longer durability of work without overheating due to improved heat removal.

GAS WELDING TORCHES TYPE G2, G3 AND G3U



G2, "MALYATKO" 233



Welding metal thickness:	0.2 - 4 mm
Used gas fuel:	Acetylene (A)
Configuration: Gas-welding tips	No. 0, 1, 2, 3
Torch weight:	no more than 0.3 kg
Torch length:	no more than 390 mm (with №3)

Designation	Hose	Order No.
"MALYATKO" 233	6/6	233.000.02

G2, "MINI DM" 273

DISTINGUISHING FEATURES:

- ▶ IDEAL FOR HOUSING AND MUNICIPAL SERVICES WORK!
- ▶ SEAMLESS COPPER TIP!



Welding metal thickness:	1 - 4 mm
Gas fuel:	Acetylene (A), MAF
Configuration:	
gas welding seamless copper tips	№№ 2,3
Can be completed with tips:	No. 0,1,4
Torch weight , no more than	0.29 kg
Length , no more than	390 mm (with №3)

Designation	Hose	Order No.
"MINI DM" 273	6/6	273.000.05
"MINI DM" 273 MAF	6/6	273.000.07

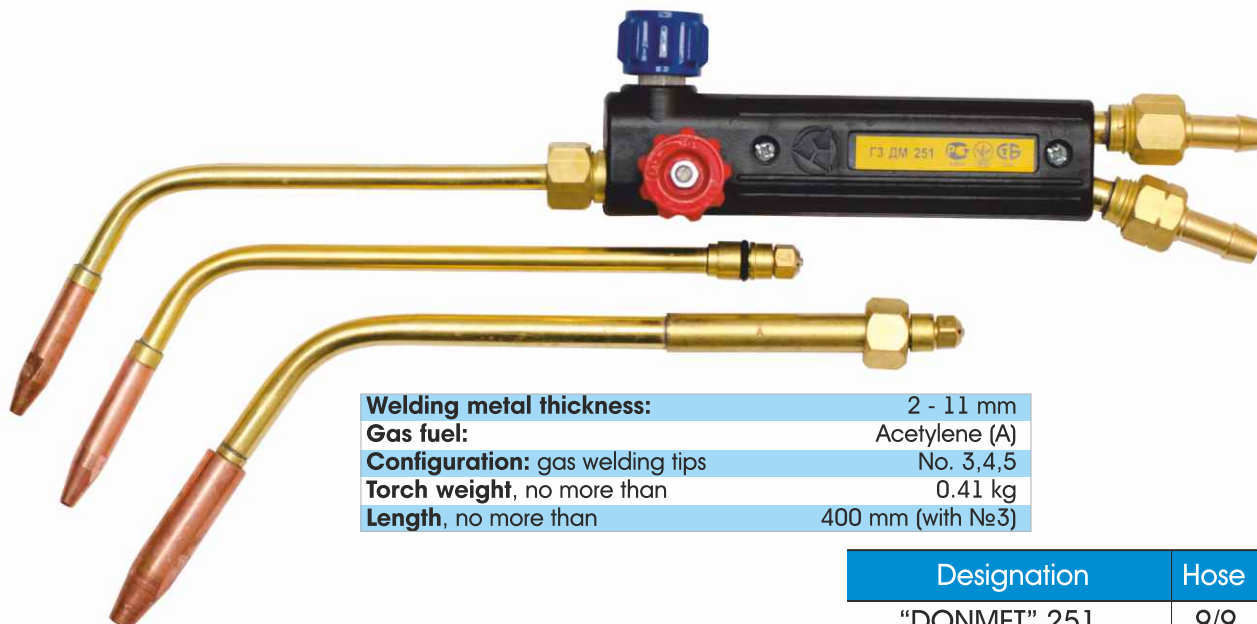
G2, "DONMET" 225



Welding metal thickness:	1 - 7 mm
Gas fuel:	Acetylene (A)
Configuration: gas welding tips	No. 2, 3 or 3, 4
Torch weight , no more than	0.41 kg
Length , no more than	400 mm (with №3)

Designation	Hose	Tips	Order No.
"DONMET" 225	6/6	No. 2, 3	225.000.00
"DONMET" 225	6/6	No. 3, 4	225.000.01
"DONMET" 225	9/9	No. 2, 3	225.000.02
"DONMET" 225	9/9	No. 3, 4	225.000.03

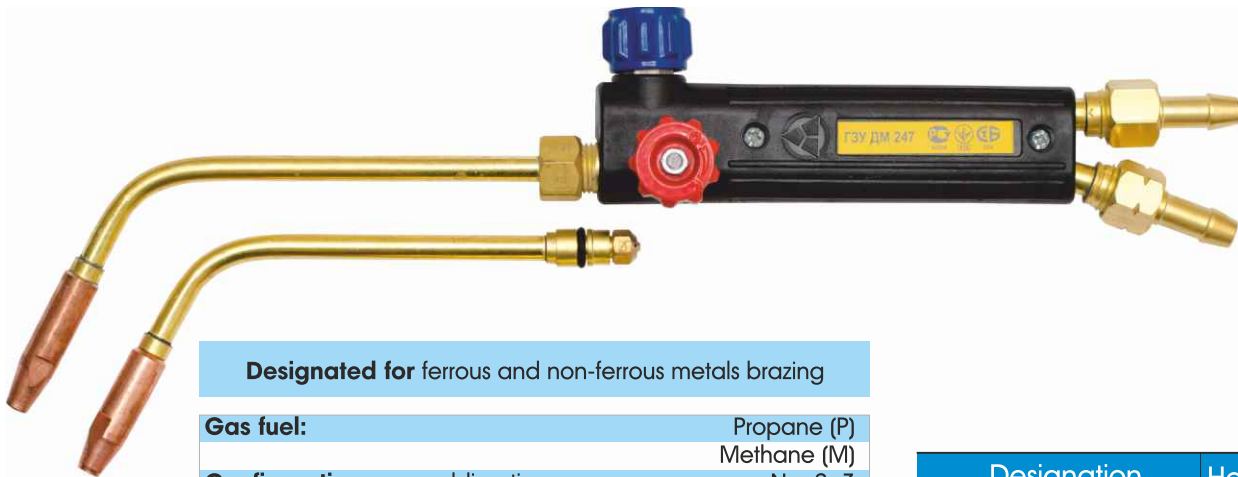
G3, "DONMET" 251



Welding metal thickness:	2 - 11 mm
Gas fuel:	Acetylene (A)
Configuration: gas welding tips	No. 3,4,5
Torch weight , no more than	0.41 kg
Length , no more than	400 mm (with №3)

Designation	Hose	Order No.
"DONMET" 251	9/9	251.000.00

G3U, "DONMET" 247



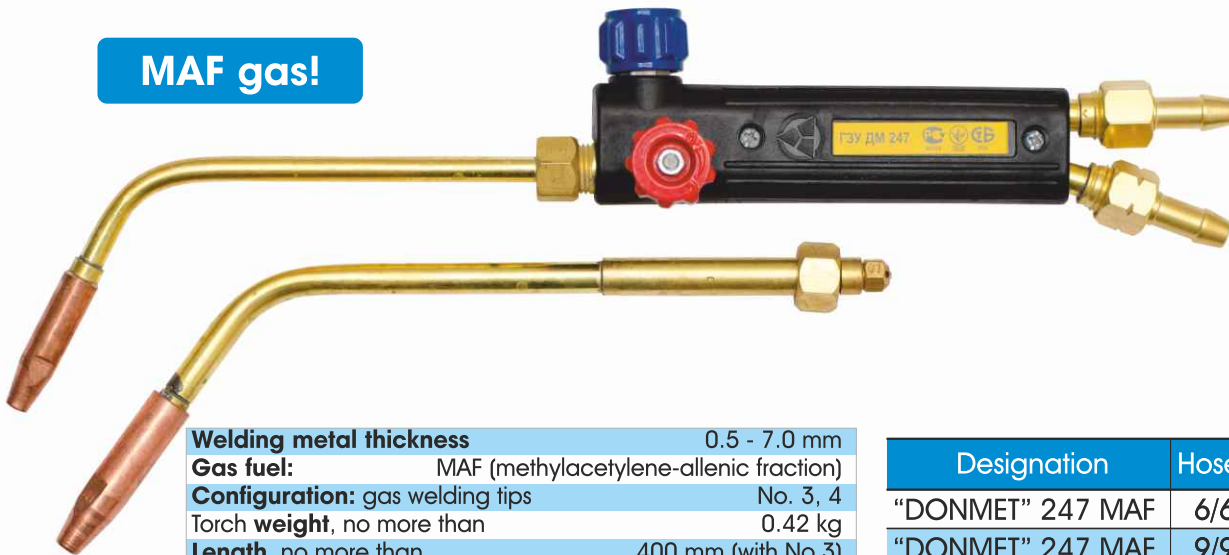
Designated for ferrous and non-ferrous metals brazing

Gas fuel:	Propane (P) Methane (M)
Configuration: gas welding tips	No. 2, 3 with forehearth
Torch weight , no more than	0.42 kg
Length , no more than	400 mm (with No.3)

Designation	Hose	Order No.
"DONMET" 247	6/6	247.000.00
"DONMET" 247	9/9	247.000.01

G3U, "DONMET" 247 MAF

MAF gas!



Welding metal thickness	0.5 - 7.0 mm
Gas fuel:	MAF (methylacetylene-allenic fraction)
Configuration: gas welding tips	No. 3, 4
Torch weight , no more than	0.42 kg
Length , no more than	400 mm (with No.3)

Designation	Hose	Order No.
"DONMET" 247 MAF	6/6	247.000.02
"DONMET" 247 MAF	9/9	247.000.03

G3U, "DONMET" 249



Designated for preliminary low- and high-temperature heating of products before welding of composite materials surfacing

Gas fuel:	Propane (P) MAF (methylacetylene-allenic fraction)
Configuration:	tips No.6 with mesh nozzle
Torch weight , no more than	0.55 kg
Length , no more than	540 mm

Designation	Hose	Order No.
"DONMET" 249 P	9/9	249.000.00
"DONMET" 249 MAF	9/9	249.000.01

Which gas is better to be used for welding: acetylene or MAF?

To compare which one is better for welding acetylene or MAF it's enough to take a torch and try to weld similar samples. For the first time – with acetylene, for the second one – with MAF. After that the answer will be apparent and clear.

- Speed of welding using acetylene is definitely higher than the same with MAF (for any thickness of metal). It's caused by higher temperature of acetylene burning. Burning temperature difference is only 200 degrees, but it's considerable during welding. Besides during acetylene welding heat-affected zones are smaller, than during MAF welding. It has influence on welding joints quality.
- So that welding of two similar samples using MAF and acetylene was performed with equal speed, it's necessary to mount a tip in the torch, a tip is to be minimum 1 or 2 numbers more than at welding with acetylene.
- Acetylene flame jet protects welding bath from oxidation during welding. MAF jet has no protective properties. That leads to degradation of welding joint mechanic properties.
- Besides as it is known MAF relates to liquefied gasses (it's heavier than air). In safety rules for gas-supply systems of Ukraine (DNAOP 0.00-1.20-98) it is mentioned as follows:
Point 4.7.18., it's prohibited to perform gas welding, cutting and other kinds of flame processing of metals using liquefied gasses in basement and underground premises, as well as in pits, mines and other buried structures.

It means that MAF can't be used by housing and municipal services, water services companies, mines, etc.

Is it possible to weld carbon steel with propane? What is the metal thickness?

It's not possible to receive high-quality welding joints at welding with oxy-propane mixture!!! Because temperature of oxy-propane mixture burning is lower than temperature of oxy-acetylene mixture burning for 1000°C. This leads to considerable lowering of welding speed and reducing of the weld penetration depth (no more than 2 mm). For the reason of low welding speed the heat-affected zones are increasing. This leads to appearing of high inner stresses and deformations. Besides oxy-propane mixture significantly oxidizes the welding bath reducing welding joint strength and leading to appearance of many defects of welding joint and changing of chemical composition of the weld adjacent area.

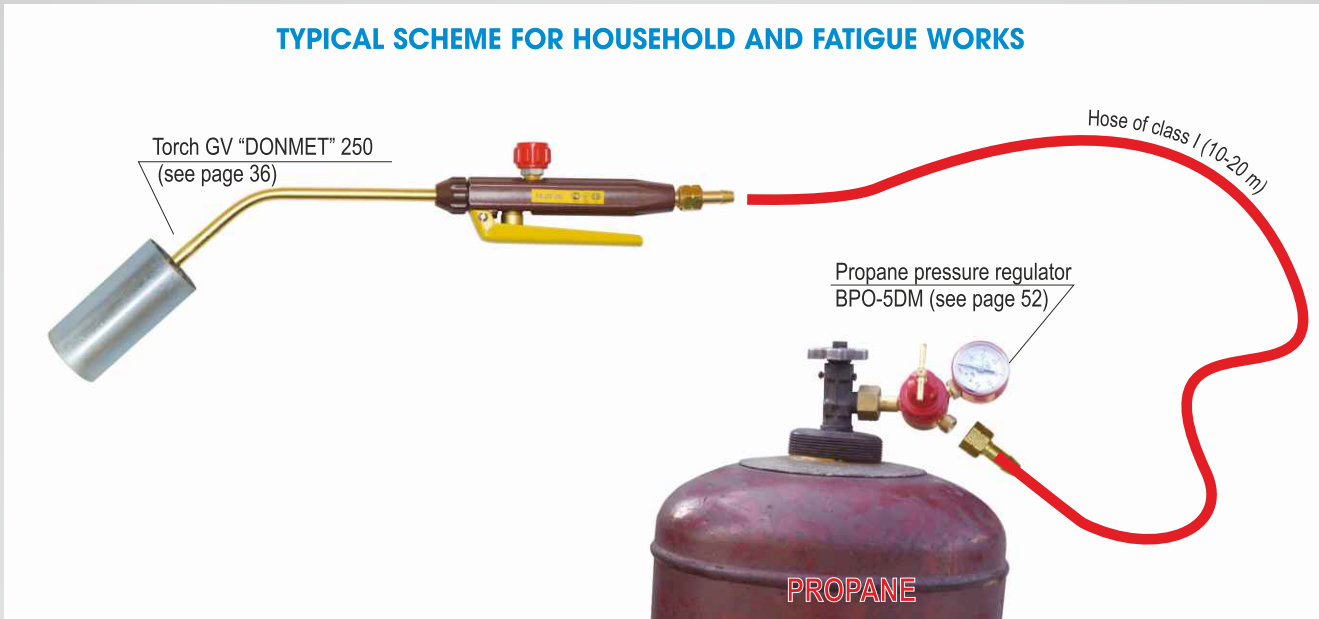
**Head of Engineering Scientific Research Laboratory
Dmitry Ruban**

answered the questions:

tel.: +38 (0626) 48-55-28, Skype: donmetlab

How to connect a torch type GV to a gas cylinder?

It's necessary to use rubber hose of class I and pressure regulator for a gas flame processing BPO-5DM to connect a torch to a gas cylinder.



Is it possible to connect the torch type GV to the gas cylinder without pressure regulator?

Point 3.5.12 NAOP 1.4.10-1.03-85 ("Health and safety rules for acetylene production and metal flame processing") "It's prohibited to tap a gas from cylinder without pressure regulator purposed for a pressure lowering during cylinders work..."

Is it possible to connect torches type GV or GVP to the gas cylinder by means of pressure regulator RDSG 1 GOST 21805-94 (Pressure regulators of liquefied petrol gas for pressure up to 1,6MPa)?

No. It's not possible, because outlet pressure of regulator RDSG doesn't correspond to the pressure working range of torches type GV and GVP. It makes (2000...3600 Pa) 0,002... 0,0036 MPa. The following pressure range is required for torches work: 0,1...0,2 MPa.

Is it possible to connect a torch type GV or GVP to natural gas low-pressure network (home gas-supply system)?

No. It's not possible, because pressure in the network doesn't correspond to pressure working range for the torches GV and GVP. It makes (up to 3000 mm w.g.) up to 0,003 MPa. The following pressure range is required for the torches work: 0,1...0,2 MPa.

What is the flame temperature of torches type GV and GVP?

The flame temperature of gas-air torch is 1000-1900°C. It depends on the torch adjusting.

Design Engineer
Alexander Krasnenko
answered the questions

tel.: +38 (0626) 48-55-28, Skype: donmetlab

Air torches type GV and GVP



Air torches type GV and GVP are designated for heating of different products, blanks of ferrous metals, non-metallic materials, washing of bituminous rolled materials surfaces, for plastic pipes heating at bending, drying of concrete panels, ladles, casting molds, for brick laying etc.

THE MAIN ADVANTAGES:

- light weight, convenience, reliability;
- keeping safety;
- high efficiency of gas using, due to high quality of gas fuel and air mixing.

GVP, "DONMET" 229



Torch with gas fuel forced supply and air bleed from atmosphere.

Use: heating and brazing of products made of ferrous and non-ferrous metals.

Gas fuel:	Propane (P)
Heating temperature:	up to 700°C
Heat flow power:	up to 4.2 kW
Torch weight, no more than	0.35 kg

Designation	Hose	Order No.
"DONMET" 229	6	229.000.05

GVP, "DONMET" 246



Torch with gas fuel forced supply and air bleed from atmosphere.

Use: heating and brazing of products made of ferrous and non-ferrous metals.

Fuel gas:	Propane (P) Methane (M)
Heating temperature:	up to 700°C
Heat flow power P/M:	up to 4.7 / 2.6 kW
Torch weight, no more than	0.21 kg

Designation	Hose	Order No.
"DONMET" 246	6	246.000.00

DISTINGUISHING FEATURES:

- ▶ PROFITABLE OFFER
- ▶ WOODEN HANDLE

GV, "DONMET" 254



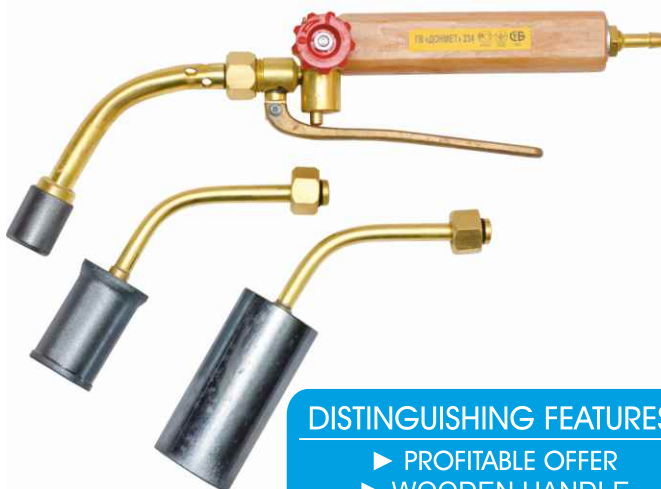
Torch with gas fuel forced supply and air bleed from atmosphere.

Designated for cable brazing, couplings crimping, household and fatigue works.

Fuel gas:	Propane (P) Methane (M)
Heat flow power P/M:	
tip GVP	4.7 / 3.5 kW
tip No.0	6.1 / 5.3 kW
tip No.1	23.8 / 9.6 kW
Configuration:	tip GV No. 0,1 tip GVP "DONMET"
Weight of torch with tip No. 1, no more than	0.55 kg

Designation	Hose	Order No.
"DONMET" 254	6	254.000.00

GV, "DONMET" 234



Torch with gas fuel forced supply and air bleed from atmosphere.

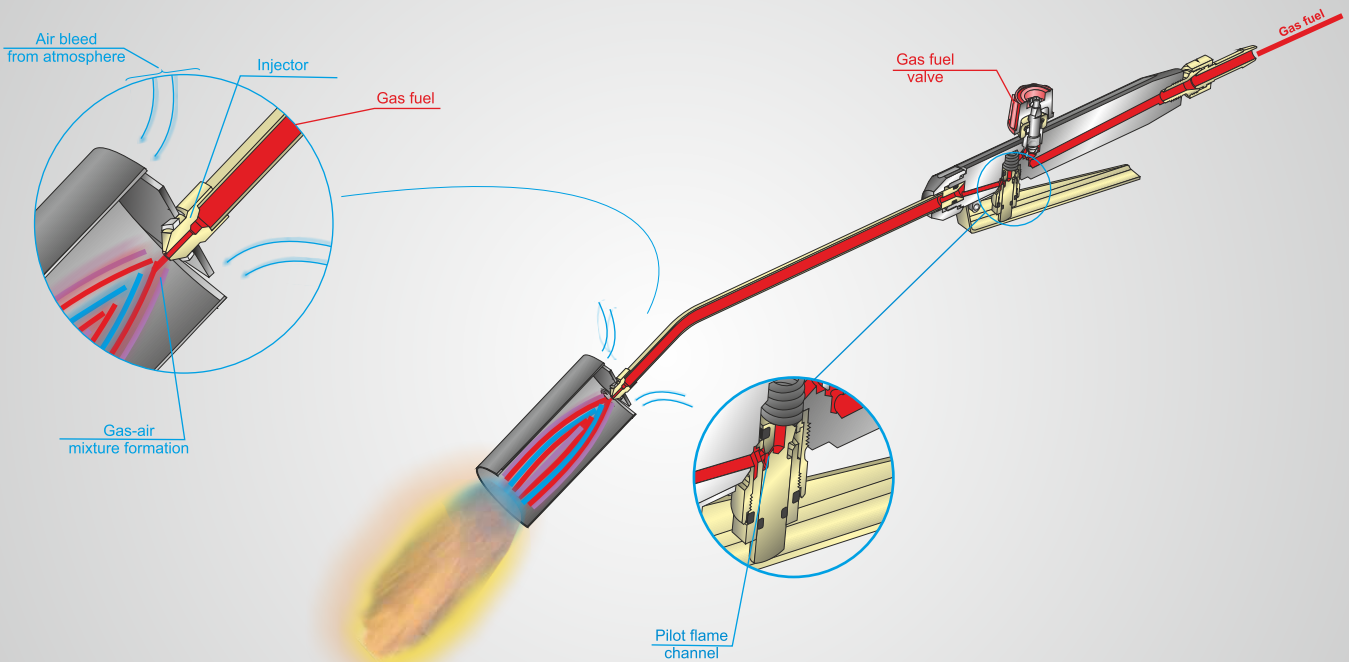
Designated for cable brazing, couplings crimping, household and fatigue works.

Fuel gas:	Propane (P) Methane (M)
Heat flow power P/M:	
tip GVP	4.7 / 3.5 kW
tip No.0	6.1 / 5.3 kW
tip No.1	23.8 / 9.6 kW
Configuration:	tip GV No. 0,1 tip GVP "DONMET"
Weight of torch with tip No. 1, no more than	0.45 kg

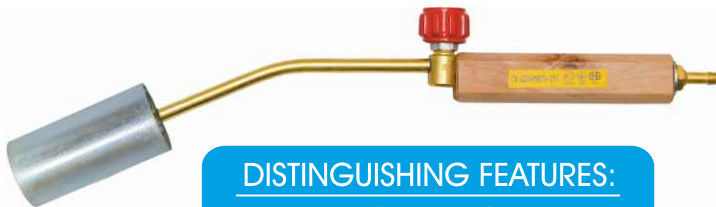
Designation	Hose	Order No.
"DONMET" 234	6	234.000.01

DISTINGUISHING FEATURES:

- ▶ PROFITABLE OFFER
- ▶ WOODEN HANDLE
- ▶ COMPLETE FUEL COMBUSTION



GV, "DONMET" 231



DISTINGUISHING FEATURES:

- ▶ PROFITABLE OFFER
- ▶ WOODEN HANDLE
- ▶ COMPLETE GAS COMBUSTION

Torch with gas fuel forced supply and air bleed from atmosphere.
Use: household and fatigue works.

Gas fuel:	Propane (P) / Methane (M)
Heat flow power P/M:	Δo 23.2 / 9.6 kW
Torch weight, no more than	0.3 kg

Designation	Hose	Nozzle	Length, mm	Order No.
"DONMET" 231	6	No. 1	400	231.000.31

GV, "DONMET" 231U



DISTINGUISHING FEATURES:

- ▶ PROFITABLE OFFER
- ▶ WOODEN HANDLE
- ▶ COMPLETE GAS COMBUSTION

Torch with gas fuel forced supply and air bleed from atmosphere.
Use: bituminous rolled materials washing, casting molds drying, etc.

Gas fuel:	Propane (P) / Methane (M)
Heat flow power P/M:	Δo 68 / 46 kW
Torch weight, no more than	0.5 kg

Designation	Hose	Nozzle	Length, mm	Order No.
"DONMET" 231U	9	No. 4	870	231.000.36

GV, "DONMET" 232



DISTINGUISHING FEATURES:

- ▶ PROFITABLE OFFER
- ▶ WOODEN HANDLE
- ▶ COMPLETE GAS COMBUSTION

Torch with gas fuel forced supply and air bleed from atmosphere.
Use: bituminous rolled materials washing, casting molds drying, etc.

Gas fuel:	Propane (P) / Methane (M)
Heat flow power P/M:	Δo 68 / 46 kW
Torch weight, no more than	0.5 kg

Designation	Hose	Nozzle	Length, mm	Order No.
"DONMET" 232U	9	No. 4	870	232.000.00
"DONMET" 232	6	No. 4	560	232.000.03

GV, "DONMET" 250U



DISTINGUISHING FEATURES:
MONOBLOCK HANDLE OF TORCH
COMPLETE GAS COMBUSTION

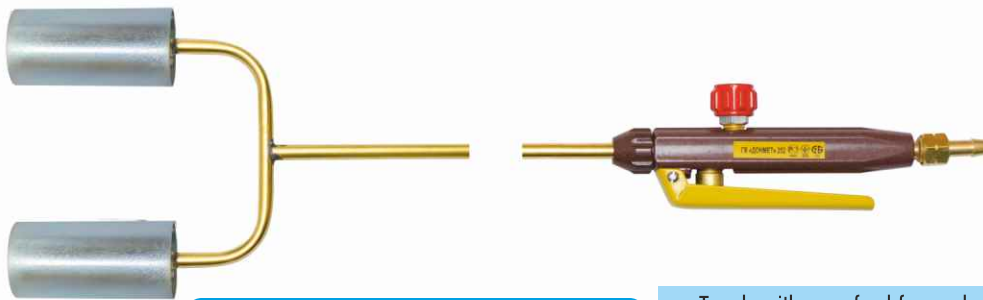
Torch with gas fuel forced supply and air bleed from atmosphere.

Use: bituminous rolled materials washing, casting molds drying etc.

Gas fuel:	Propane (P) / Methane (M)
Heat flow power P/M:	up to 68 / 46 kW
Torch weight, no more than	0.73 / 0.65 kg

Designation	Hose	Nozzle	Length, mm	Order No.
"DONMET" 250U	9	No. 4	850	250.000.00
"DONMET" 250	9	No. 4	550	250.000.04

GV, "DONMET" 252



DISTINGUISHING FEATURES:
MONOBLOCK HANDLE OF TORCH
COMPLETE GAS COMBUSTION

Torch with gas fuel forced supply and air bleed from atmosphere.

Use: bituminous rolled materials washing, casting molds drying etc.

Gas fuel:	Propane (P) / Methane (M)
Heat flow power P/M:	up to 96 / 61 kW
Torch weight, no more than	0.95 kg

Designation	Hose	Nozzle	Length, mm	Order No.
"DONMET" 252	9	No. 4	920	252.000.00

GV, "DONMET" 263



Torch with gas fuel forced supply and air bleed from atmosphere.

Use: placement of surfacing rolled roof and waterproof material.

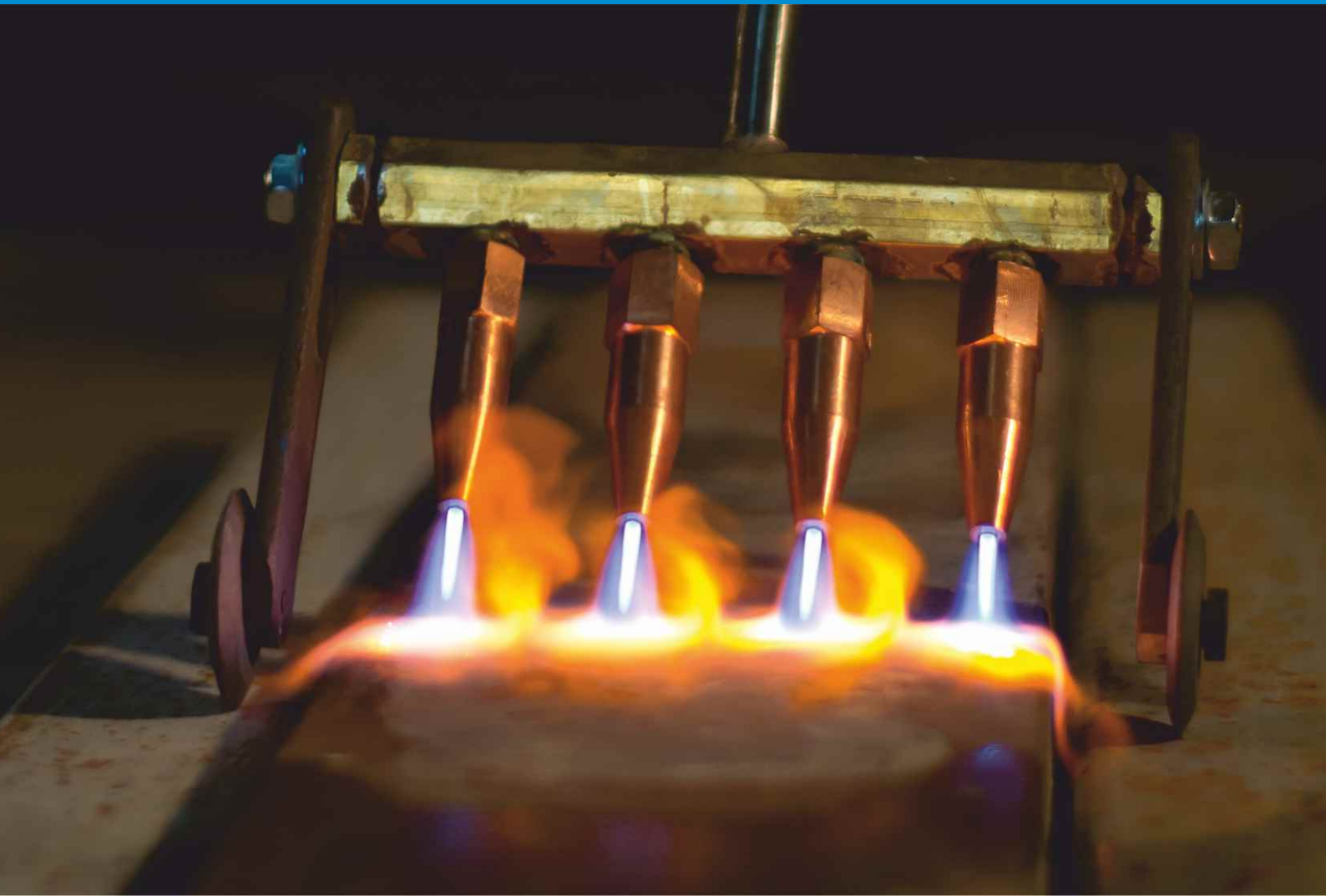
To use capabilities of air torch «DONMET» 263 completely it's recommended to connect the torch to four cylinders with propane-butane simultaneously, because at work of one cylinder evaporation rate of liquefied petrol gas doesn't allow to provide required gas consumption.

Fuel gas:	Propane-butane (P)
Gas fuel consumption:	18.8 - 25.1 kg/h*
Pressure:	2 - 3 kgf/cm ²
Heat flow power (nozzle No. 4x7):	315.7 - 429.2 kW
Grasp width	1000 mm
Torch weight, no more than	5.2 kg

***Note:** 1 kg of liquefied propane-butane forms approximately 500 l of gas during evaporation

Designation	Hose	Nozzle	Order No.
"DONMET" 263	9	No. 4	263.000.01

SPECIAL GAS WELDING TORCHES



Unique special torches have received general application in greater part of industry branches (from food to metallurgical) at different enterprises in Ukraine and Russia.

This equipment has gained reputation of reliable and safe.

It's applied in different technological processes as follows: for heating, drying, firing, preliminary heating, etc.

“DONMET” 280 “VEPR”

High power
at low gas pressure!



Gas fuel:	Methane (M) / Propane-butane (P)
Heat flow power M/P:	up to 57 / 42 kW
Flame length:	330 - 800 mm
Pressure:	
Compressed air	3 - 5 kgf/cm ²
Natural gas (methane)	0.025...0.1 kgf/cm ²
Propane-butane	0.1...0.3 kgf/cm ²
Consumption, no more than:	
Compressed air	12 m ³ /h
Natural gas (methane)	6 m ³ /h
Propane-butane	1.7 m ³ /h (3.4 kg/h)
Flame temperature:	1870°C
Torch length, no more than:	785 / 1185 mm
Torch weight, no more than:	1.16 / 1.4 kg

Torch with compressed air forced supply.

Designated for:

- heating of products made of ferrous and non-ferrous metals, non-metallic materials;
- preliminary heating before surfacing and welding;
- elimination of welding deformations and stresses;
- heating of parts at assembly (disassembly), heavy-shrink fitting;
- washing of bituminous rolled materials surface at production of waterproof material and rolled roofing material;
- drying of casting molds, reinforced concrete panels and brick laying;
- flame treatment of farm animals carcasses.

Designation	Hose	Length, mm	Order No.
“DONMET” 280	9/9	785	280.000.00
“DONMET” 280	9/9	1185	280.000.01

Delivery terms should be agreed.

“DONMET” 275

Natural gas
+ compressed air
= 63 kW of heat flow



Gas fuel:	Methane (M)
Heat flow power:	до 63 kW
Flame length:	300 - 700 mm
Pressure:	
Compressed air	3 - 8 kgf/cm ²
Natural gas (methane)	0.025...2.0 kgf/cm ²
Consumption, no more than:	
Compressed air	36.9 m ³ /h
Natural gas (methane)	6.6 m ³ /h
Flame temperature:	1870°C
Torch length, no more than:	1370 mm
Torch weight, no more than:	4.6 kg

Torch with forced supply of compressed air.

Designated for:

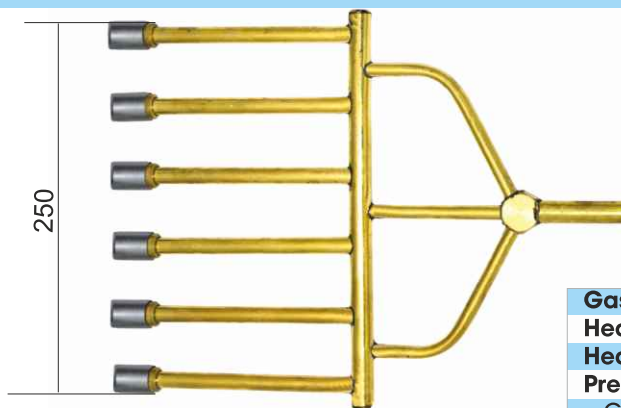
- heating of products made of ferrous and non-ferrous metals, non-metallic materials;
- preliminary heating before surfacing and welding;
- elimination of welding deformations and stresses;
- heating of parts at assembly (disassembly), heavy-shrink fitting;
- drying of casting molds, reinforced concrete panels and brick laying.

The torch is installed stationary.

Designation	Hose	Order No.
“DONMET” 275	12/12	275.000.00

Delivery terms should be agreed.

“DONMET” 265



Multiflame torch with compressed air forced supply.

Designated for:

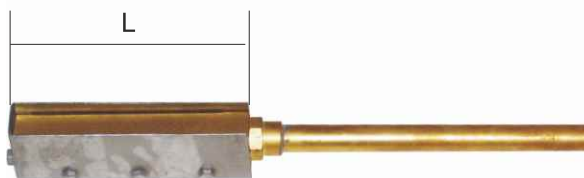
- heating of products made of ferrous and non-ferrous metals, for surfacing and welding;
- elimination of welding deformations and stresses;
- heating of parts at assembly (disassembly), heavy-shrink fitting.

Gas fuel:	Methane (M) / Propane-butane (P)
Heat flow power:	up to 19 kW
Heating strip width:	up to 300 mm
Pressure:	
Compressed air	4 - 6 kgf/cm ²
Natural gas (methane/ propane-butane)	0.025/0.1 kgf/cm ²
Consumption, no more than:	
Compressed air	21.5 / 16.7 m ³ /h
Natural gas (methane/ propane-butane)	2.0 / 0.7 m ³ /h
Flame temperature:	1870°C
Torch length, no more than:	789 mm
Torch weight, no more than:	1.45 kg

Designation	Hose	Order No.
“DONMET” 265	9/9	265.000.00

Delivery terms should be agreed.

“DONMET” 283



Multiflame torch with compressed air forced supply.

Designated for:

- heating of products made of ferrous and non-ferrous metals, for surfacing and welding;
- elimination of welding deformations and stresses;
- heating of sheet metal at dressing and bending;
- heating of bodies of rotation at installation to the lathe;
- surface activation of polyethylene and polypropylene products at screen printing.

Gas fuel:	Methane (M)
Heat flow power for (L):	Δ0 5.75 / 17.25 kW
Working zone length (L):	100 / 250 mm
Pressure:	
Compressed air	3 - 5 kgf/cm ²
Natural gas (methane)	0.025 - 0.1 kgf/cm ²
Consumption, no more than:	
Compressed air	4.5 / 17 m ³ /h
Natural gas (methane)	0.6 - 1.8 m ³ /h
Flame temperature:	1870°C
Torch length, no more than:	645 / 795 mm
Torch weight, no more than:	1.4 / 2.3 kg

Designation	Hose	L, mm	Order No.
“DONMET” 283	9/9	100	283.000.00
“DONMET” 283-01	9/9	250	283.000.01

Delivery terms should be agreed.

G3U “DONMET” 262



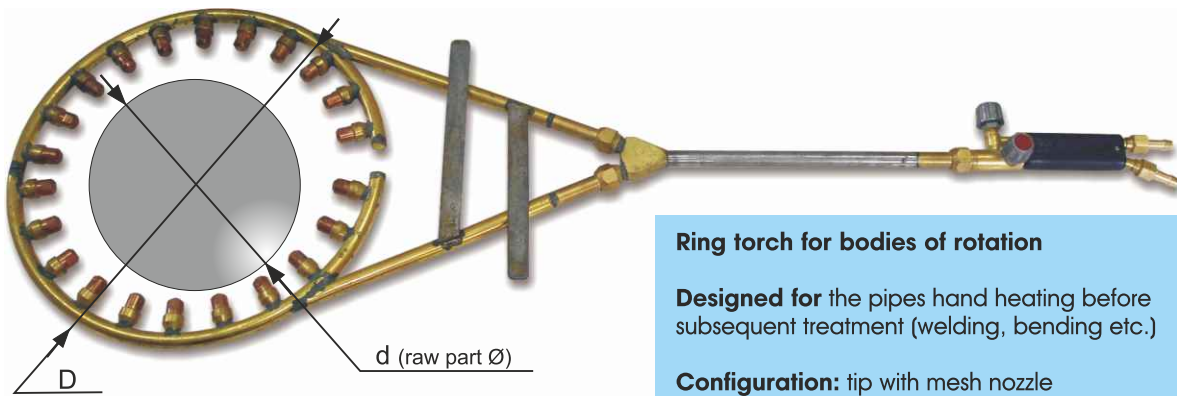
Designated for heating of spare parts and raw parts made of ferrous and non-ferrous metals, surfacing of composite materials.

Gas fuel:	Propane-butane (P) / Methane (M)
Configuration:	tip with mesh nozzle
Torch length, no more than:	750 / 1150 mm
Torch weight, no more than:	1.2 / 1.45 kg

Designation	Hose	L, mm	Order No.
“DONMET” 262	9/9	750	262.000.00
“DONMET” 262	9/9	1150	262.000.01

Delivery terms should be agreed.

“DONMET” 271



Ring torch for bodies of rotation

Designed for the pipes hand heating before subsequent treatment (welding, bending etc.)

Configuration: tip with mesh nozzle

Designation	Hose	Gas fuel	Torch weight, kg	L, mm	D, mm	d, mm	Order No.
“DONMET” 271A	9/9	Acetylene	3.5	1055	300	80-100	271.000.00
“DONMET” 271A	9/9	Acetylene	3.8	1185	376	180-200	271.000.01
“DONMET” 271A	9/9	Acetylene	4.0	1340	470	280-300	271.000.02
“DONMET” 271M	9/9	Methane	3.5	1500	250	80-100	271.000.03
“DONMET” 271M	9/9	Methane	3.0	950	200	30-50	271.000.04

Delivery terms should be agreed.

“DONMET” 276



Torch for thermal straightening

Designated for heating and preheating of spare parts and raw parts of ferrous and non-ferrous metals.

Designation	Hose	Gas fuel	Torch weight, kg	L, mm	B, mm	Nozzles quantity, pcs.	Order No.
“DONMET” 276A	9/9	Acetylene	1.0	1000	100	2	276.000.00
“DONMET” 276A	9/9	Acetylene	1.4	1000	130	3	276.000.01
“DONMET” 276A	9/9	Acetylene	1.7	1000	160	4	276.000.02
“DONMET” 276P	9/9	Propane	3.1	1000	300	10	276.000.04
“DONMET” 276M	9/9	Methane	2.0	1200	160	4	276.000.05
“DONMET” 276M	9/9	Methane	3.1	1100	160	6	276.000.15

Delivery terms should be agreed.

“DONMET” 255



IT SAVES YOUR MONEY!

Stationary torch (efficient)

It's used at on-site gas-welding stations for reducing oxygen and gas consumption by means of shut-off during intervals and auxiliary operations performance.

It's required if work of tools is interrupted very often.

Designation	Hose	Order No.
“DONMET” 255 A, MAF	6/6	255.000.00
“DONMET” 255 A, MAF	9/9	255.000.01
“DONMET” 255 P, M	6/6	255.000.02
“DONMET” 255 P, M	9/9	255.000.03

Delivery terms should be agreed.

FLASHBACK ARRESTERS AND ARRESTERS



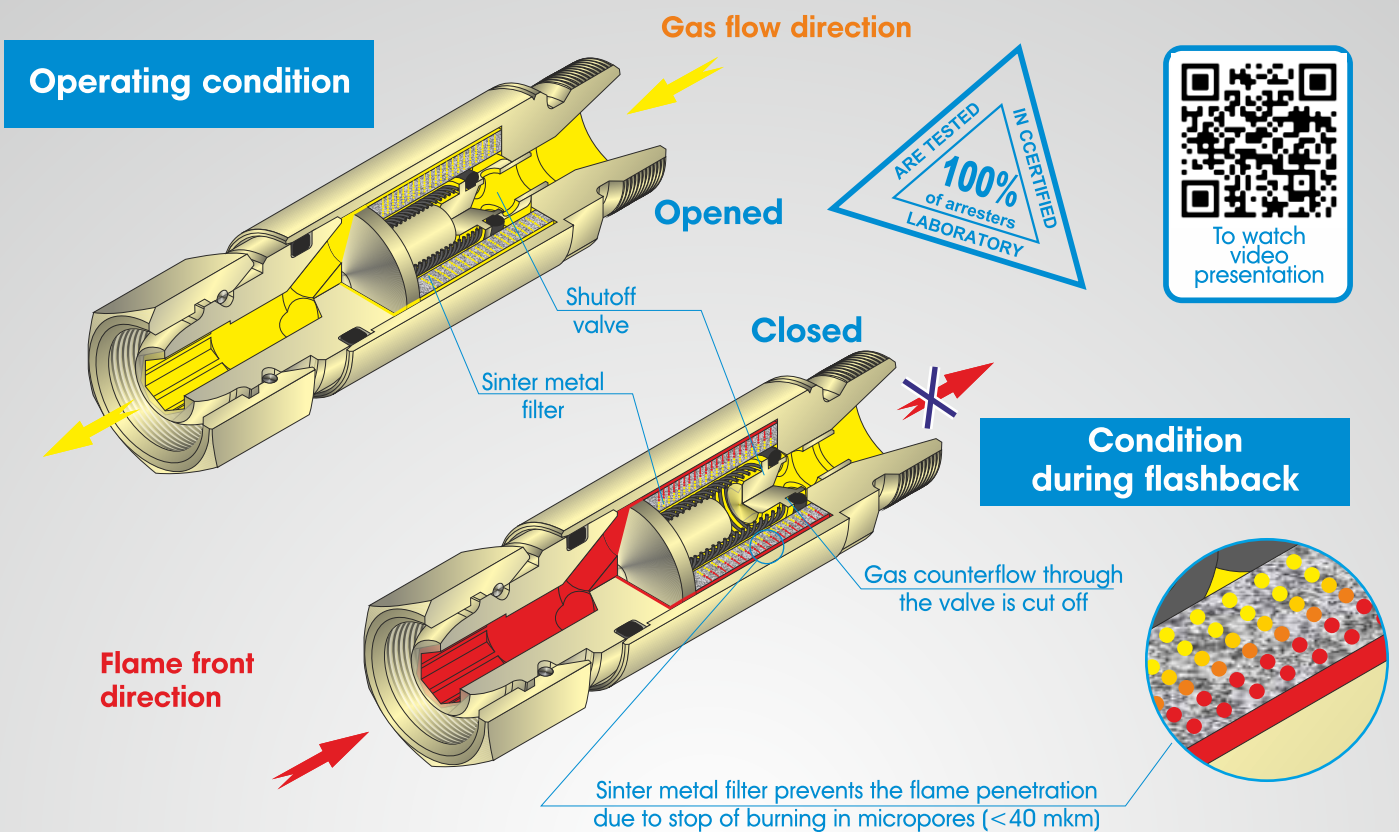
Flashback arresters and arresters are designated for protection from gas counterflow, as well as from flashbacks. Work without arresters is DANGEROUS!

These arresters have gained reputation of safe and reliable equipment for 10 years at the market.

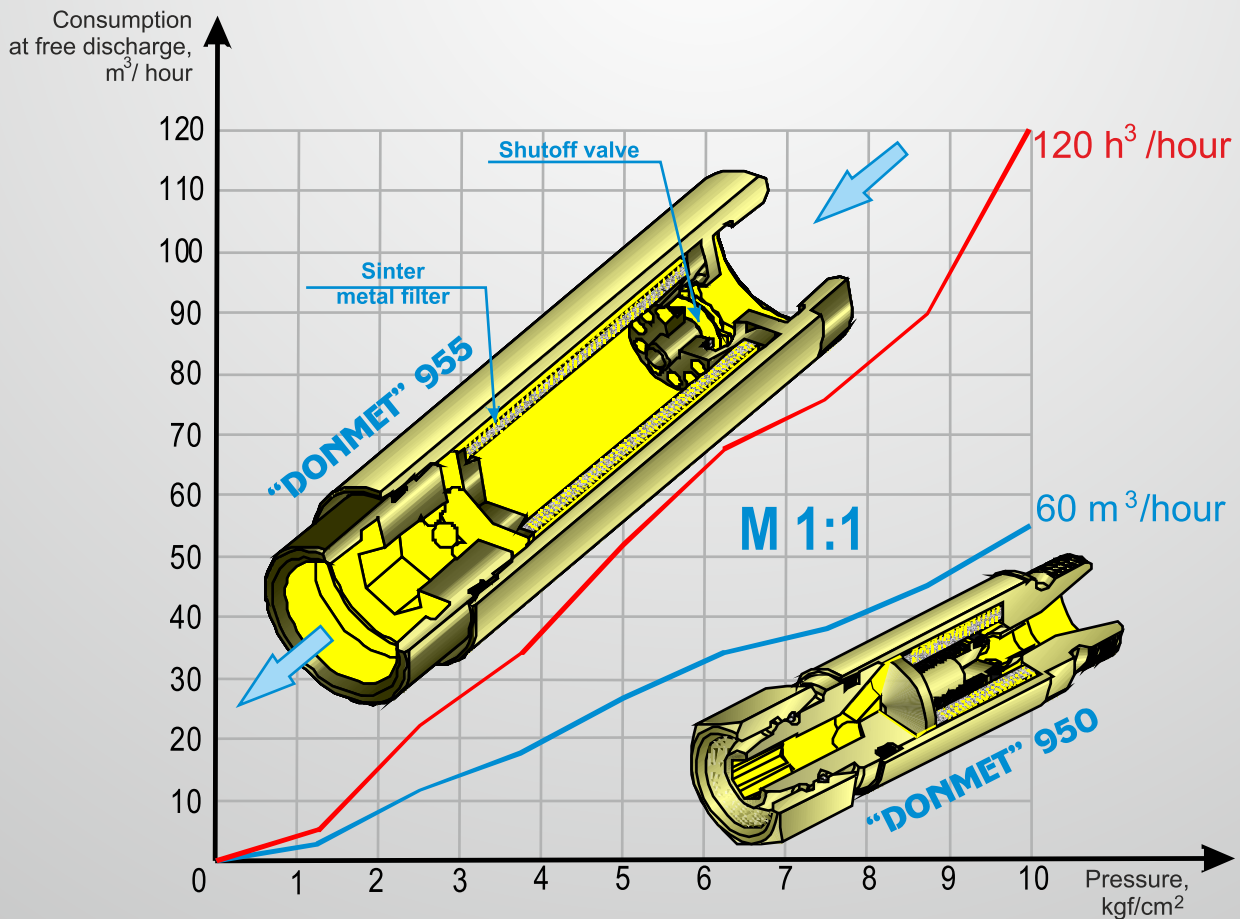
THE MAIN ADVANTAGES:

- arrests gas counterflow at the pressure from 0,03 kgf/cm² and higher;
- sinter metal filter of stainless steel (size of micropores no more than 40 mkm) prevents the flame penetration in hoses and cylinders;
- withstand no less than 100 flashbacks in a row;
- 100% of produced arresters are tested in certified laboratory.

PRINCIPAL DIAGRAM OF FLASHBACK ARRESTERS WORK



GAS CONSUMPTION – VERSUS – PRESSURE DIAGRAM



NEW FLASHBACK ELEMENT!!!



- Reliable
- Guaranteed quality
- Compliance to European standards
- Made in Germany

For installation to cutting torch (welding torch)



Arrow shows gas direction to the consumer!

Type	Gas	Maximum working pressure, kgf/cm ²	Rated capacity m ³ /hour	Thread	Order No.
a) KOK	oxygen	10	60	M12x1.25	950.000.00
		10	60	M14x1.5	950.000.01
		10	60	M16x1.5	950.000.02
		10	60	G 1/4	950.000.03 *
		10	60	G 3/8	950.000.04 *
b) KOG	acetylene propane methane	1.5	10	M12x1.25LH	950.000.05
		3.0	15	M14x1.5LH	950.000.06
		3.0	15	M16x1.5LH	950.000.07
		3.0	15	G 3/8LH	950.000.09 *

* numbers of orders in which delivery terms should be agreed

For installation in hose rupture place



Arrow shows gas direction to the consumer!

Type	Gas	Maximum working pressure, kgf/cm ²	Rated capacity m ³ /hour	Thread	Order No.
a) KOK	oxygen	10	60	M12x1.25	950.000.10
		10	60	M14x1.5	950.000.11
		10	60	M16x1.5	950.000.12
		10	60	G 1/4	950.000.13 *
		10	60	G 3/8	950.000.14 *
b) KOG	acetylene propane methane	1.5	10	M12x1.25LH	950.000.15
		3.0	15	M14x1.5LH	950.000.16
		3.0	15	M16x1.5LH	950.000.17
		3.0	15	G 3/8LH	950.000.19 *

* numbers of orders in which delivery terms should be agreed

For installation to pressure regulator



Arrow shows gas direction to the consumer!

Type	Gas	Maximum working pressure, kgf/cm ²	Rated capacity m ³ /hour	Thread	Order No.
a) KOK	oxygen	10	60	M12x1.25	950.000.20
		10	60	M14x1.5	950.000.21
		10	60	M16x1.5	950.000.22
		10	60	G 1/4	950.000.23 *
		10	60	G 3/8	950.000.24 *
b) KOG	acetylene propane methane	1.5	10	M12x1.25LH	950.000.25
		3.0	15	M14x1.5LH	950.000.26
		3.0	15	M16x1.5LH	950.000.27
		3.0	15	G 3/8LH	950.000.29 *

* numbers of orders in which delivery terms should be agreed

Network flashback arrester “DONMET”


Designated for gas stations (gas pipelines) protection from rupture and inflammations during flashbacks.

It's installed to gas stations (gas pipelines) supplying increased power cutting torches DONMET.

Type	Gas	Maximum working pressure, kgf/cm ²	Rated capacity, m ³ /hour	Thread	Order No.
a) KOK	oxygen	10	120	G 3/4	955.000.00*
b) KOG	acetylene	1.5	20	G 3/4	955.000.01*
	propane/methane	3.0	30	G 3/4	

* numbers of orders in which delivery terms should be agreed.

Arrester “DONMET”

Designated to prevent gas counterflow in oxygen and gas hoses.

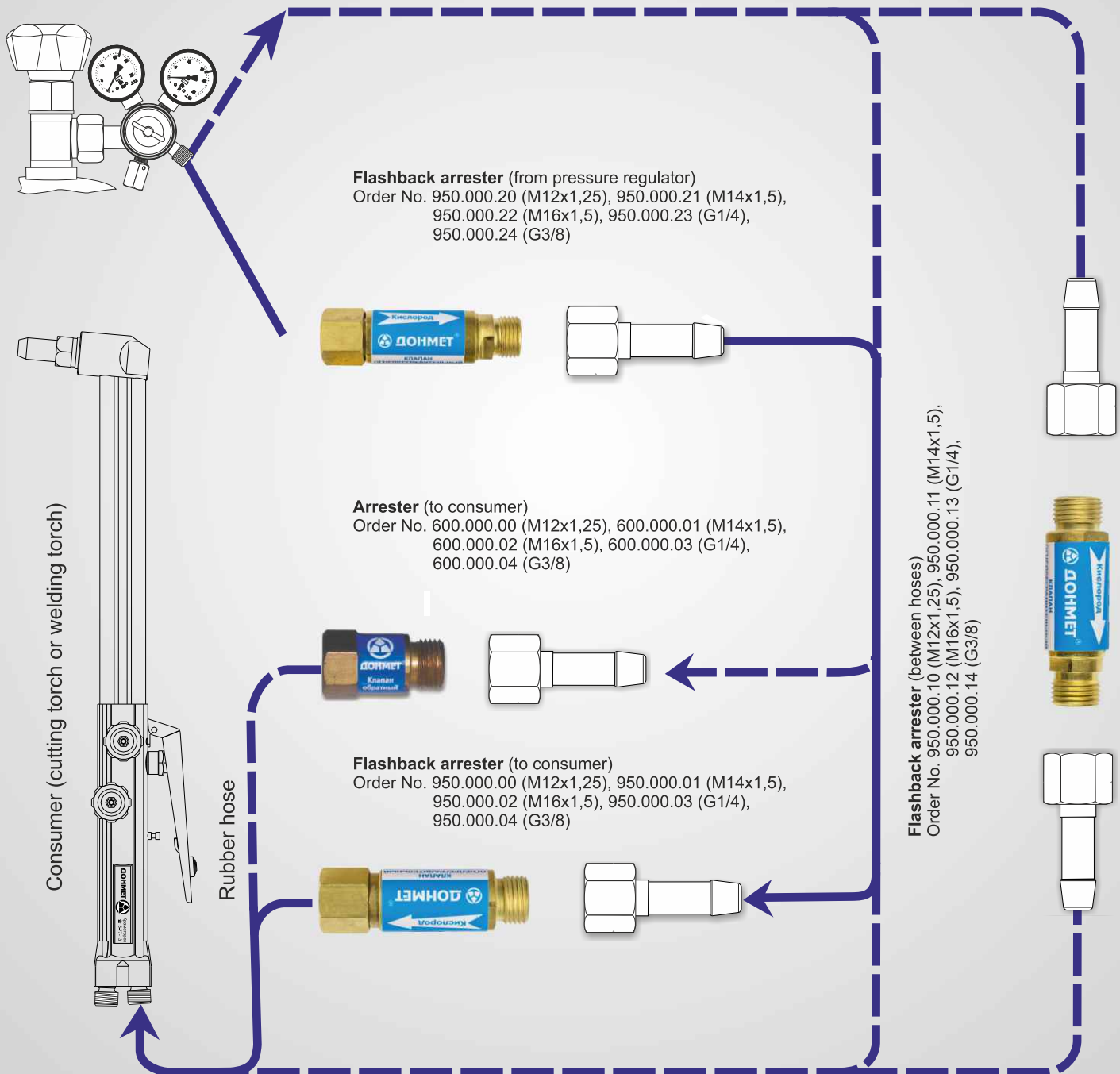
It's installed in cutting torch or welding torch.

Type	Gas	Maximum working pressure, kgf/cm ²	Rated capacity, m ³ /hour	Thread	Order No.
a) OBK	oxygen	10	60	M12x1.25	600.000.00
		10	60	M14x1.5	600.000.01
		10	60	M16x1.5	600.000.02
		10	60	G 1/4	600.000.03*
		10	60	G 3/8	600.000.04*
b) OBG	acetylene propane methane	1.5	10	M12x1.25LH	600.000.05
		3.0	15	M14x1.5LH	600.000.06
		3.0	15	M16x1.5LH	600.000.07
		3.0	15	G 3/8LH	600.000.08*

* numbers of orders in which delivery terms should be agreed.

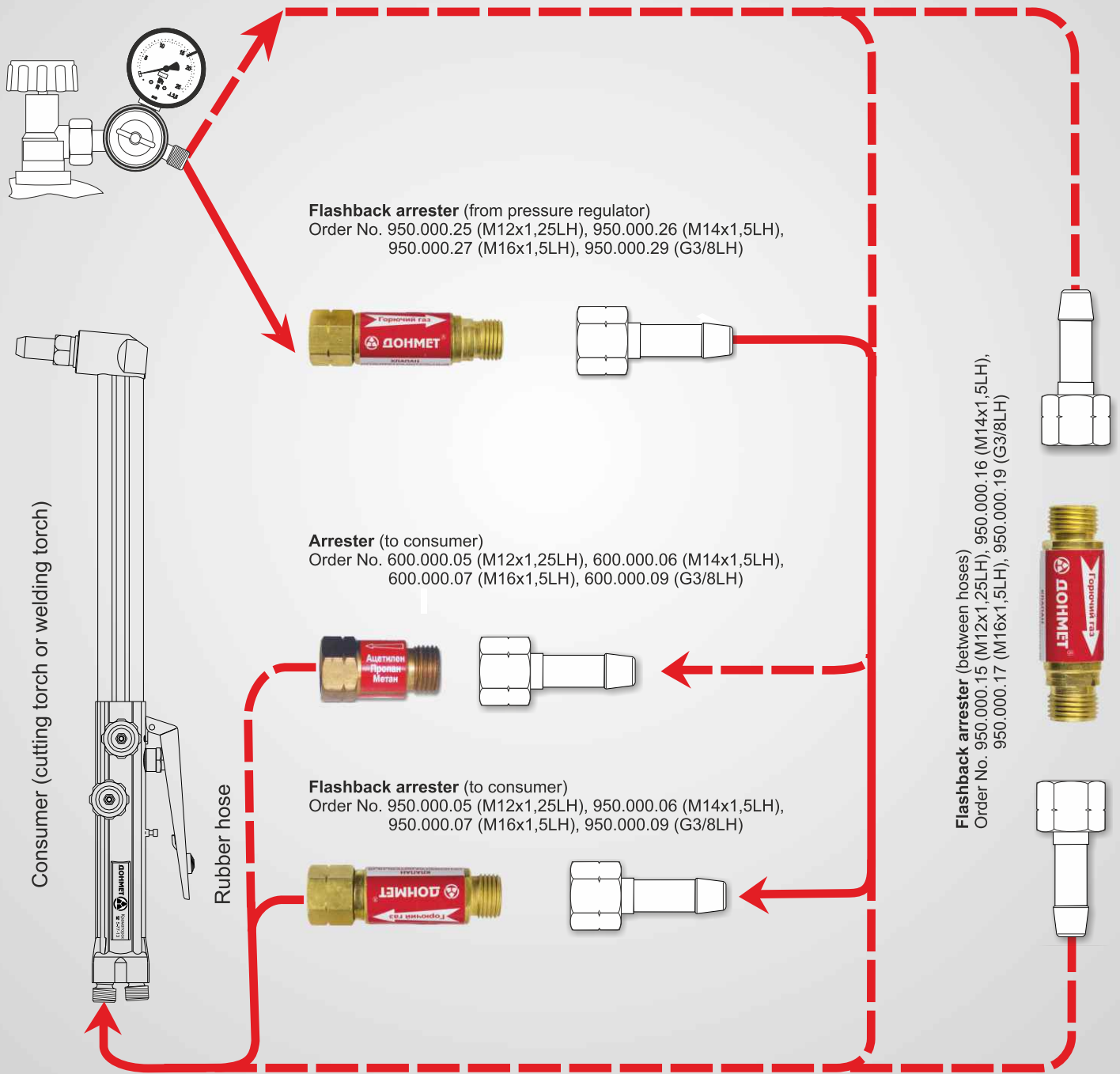
Arrow shows gas direction to the consumer!

OXYGEN ARRESTERS AND FLASHBACK ARRESTERS CONNECTION VARIANTS



Threads M12x1,25, M14x1,5 for hoses Dy=6.
 Threads M16x1,5, G3/8 for hoses Dy=9.

CONNECTION VARIANTS OF ARRESTERS AND FLASHBACK ARRESTERS FOR FUEL GASES (acetylene, propane, methane, etc.)



Threads M12x1,25LH, M14x1,5LH for hoses Dy=6.
 Threads M16x1,5LH, G3/8LH for hoses Dy=9.

1) What is an arrester?

Arrester is a protective device, which prevents counterflow of gas. Arrester prevents dangerous operating conditions initiation and equipment (facilities) breakage in case of wrong use or accidents.

2) What is a flashback arrester?

Flashback arrester is a protective device, which prevents flame passage, appearing at flashback or gas fuel decomposition, mixture with oxygen or air in the protected equipment, facilities or supply lines.

3) What are the differences between the arrester and the flashback arrester?

There is a protective device mounted in the arrester which protects facilities from the gas counterflow. There is a sinter metal filter in-built in the flashback arrester (except protective device), which prevents a flashback and stops burning in micropores ($< 40 \text{ mkm}$).

4) I've installed flashback arresters to cutting torches, an oxygen one and a gas one. After flashback the mixture pipe burned out. Why didn't the arresters protect a cutting torch?

Flashback arresters are to be installed to inlet connections of cutting torch or welding torch. They protect equipment installed behind them, as follows: hose, pressure regulator and cylinder. That's why the arresters could not protect the mixture pipe from burning out.

5) Is the flashback arrester work possible with oxygen pressure higher than 25 kgf/cm^2 ?

According to demands of GOST 12.2.052-81 "Equipment working with gas oxygen", contact type M1, it's prohibited to use stainless steel at oxygen pressure exceeding 25 kgf/cm^2 and flow speed $25\text{-}80 \text{ m/s}$, because of the possibility of sinter metal filter inflammation.

There is a sinter metal filter used in the flashback arrester design. It's made of stainless powder 12X18H10T, that's why work of flashback arrester at pressure more than 25 kgf/cm^2 is prohibited, because of possibility of inflammation of sinter metal filter.

6) What is a service life of the flashback arrester? Can it be repaired?

Based on results of experiments made in laboratories of DONMET plant it was established that the flashback arrester can withstand up to 50 flashbacks at a time, or 3000 flashbacks upon condition of complete cooling of the arrester after each actuation cycle. After that the flashback arrester is considered unserviceable, because of the throughput capacity reducing for more than 30%. Capacity reduces depends on clogging of sinter metal filter pores with a black.

The flashback arrester can be repaired at the plant only. It is more efficient to buy a new one.

**Design Engineer
Vitaliy Lisovoy**

answered the questions:

tel.: +38 (0626) 48-55-28, Skype: donmetlab

1) Why are there not any plant numbers marked on pressure regulators?

According to standard GOST 13861 «Pressure regulators for flame processing», used by DONMET for the pressure regulators manufacture, marking with numbers is not required.

2) How often should the membrane and reducing valve be replaced?

Reducing valve and membrane should be replaced, if necessary. In fact, in case of failure or revealing deviations from the norm during periodical checkup for leakages once per 3 months (according to SAFETY RULES FOR WORK WITH TOOLS AND ACCESSORIES p.8.3.69).

3) How often should the grease be removed from the pressure regulator?

If operation conditions correspond to the norms there is no necessity to remove grease from the pressure regulator. It's performed by the manufacturing plant.

4) Why does the carbon-dioxide/argon pressure regulator freeze?

Pressure regulator can freeze because of moisture content in the reducing gas, if a great amount of gas was subject to drawing for a long time. To prevent carbon-dioxide regulator freezing it's recommended to use flowing heater (taking into account its capacity value). Argon regulator can freeze only in case if the cylinder is filled with argon, supersaturated with air vapors. It's violation of GOST 10157 "Argon gas and liquid argon" norms.

5) Is it possible to use carbon-dioxide pressure regulators made by DONMET plant for gas supply in aquarium?

Aquarium requires very low consumption, so one pressure regulator is not enough. It's required to adjust the regulator to minimum pressure (up to 1 atm) and to install pneumatic throttle valve (or needle valve) at inlet of regulator.

For further details see video (transfer by means of QR-code).



6) How often should the gauges be checked?

According to NPAOP 0.00-1.07-94 RULES FOR INSTALLATION AND SAFE USE OF PRESSURE CYLINDERS p.5.3.11: Gauges check, tag out or stamping should be performed no less than once per 12 months.

7) Pressure measuring units

1 bar = 0,1 MPa

1 bar = 1,020 kg/cm²

1 bar = 0,99 atm

1 bar = 10197 mm H₂O



Video!
How to repair
a pressure regulator!

**Design Engineer
Elena Ivankina**

answered the questions

tel.: +38 (0626) 48-55-28, Skype: donmetlab

CYLINDER GAS PRESSURE REGULATORS



Cylinder gas pressure regulators are designed for lowering of working pressure, supplied from cylinder or gas-distributing pipeline, and automatic keeping of these gases pressure stable.

“DONMET plant” manufactures pressure regulators purposed for work with the following kind of gases: oxygen, propane-butane, MAF, acetylene.

THE MAIN ADVANTAGES:

- reliability (returns under reclamations make no more than 0.1%);
- all working and conjunctive parts are made of brass;
- all gauges are calibrated in certified laboratory.

ALL GAUGES OF PRESSURE REGULATORS AT DONMET PLANT ARE CALIBRATED!

calibration year (2015)

designation of accredited certifying laboratory of DONMET plant

quarter (3)

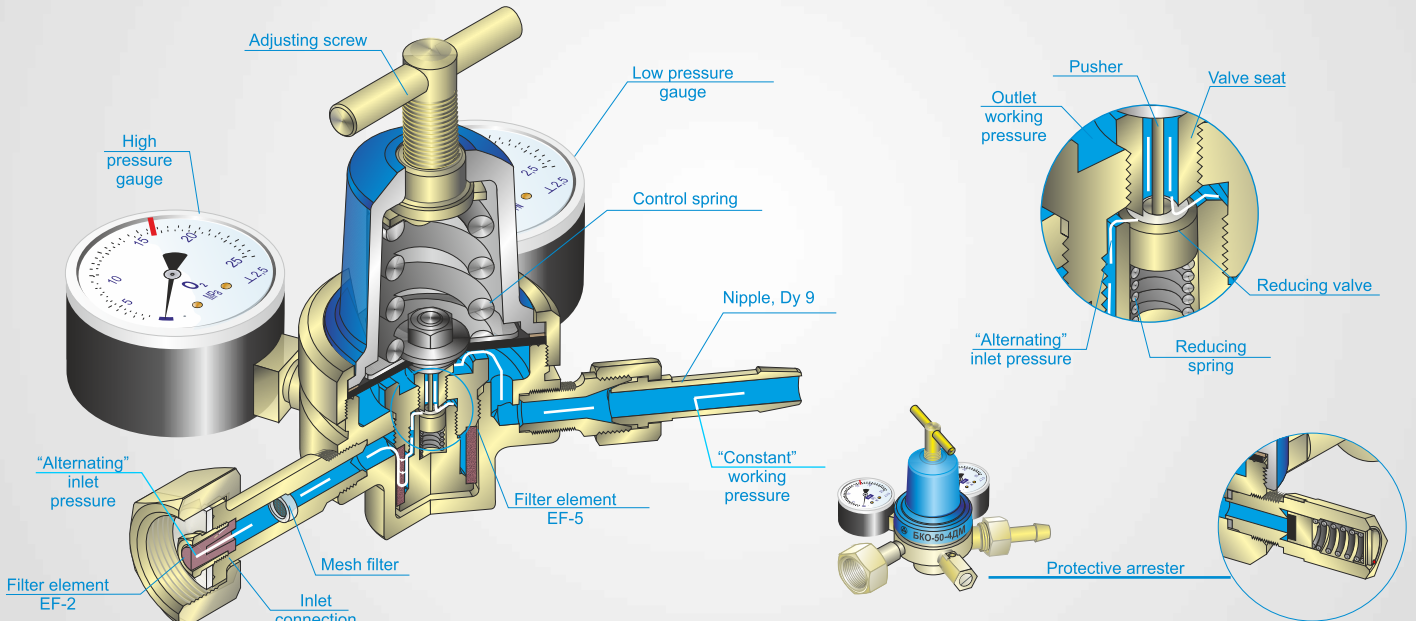
national symbol (Ukraine)

designation of calibration office

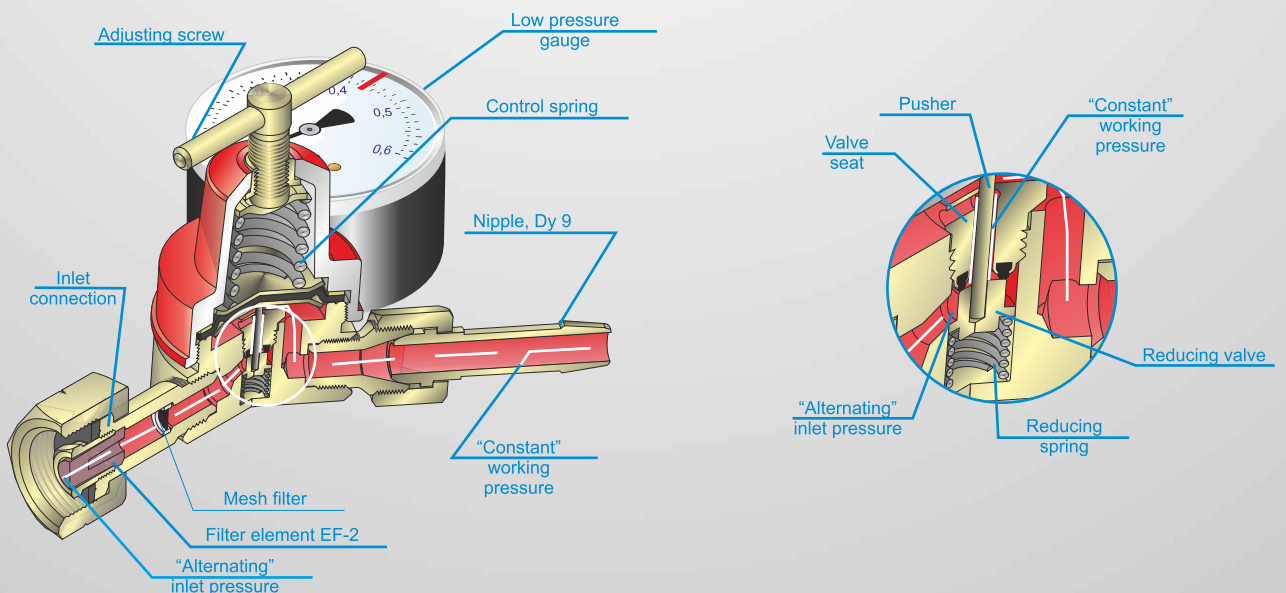
Calibration periods comprise 12 months. Calibration/certification stamp is marked at inner or outer side of gauge.

PRINCIPAL DIAGRAMS OF PRESSURE REGULATORS

CYLINDER PRESSURE REGULATOR FOR OXYGEN BKO-50-4DM



CYLINDER PRESSURE REGULATOR FOR PROPANE BPO-5DM



Oxygen pressure regulator BKO-50-4-2DM



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	1.2 kg

Designation	Hose, Dy	Order No.
BKO-50-4-2DM	9	046.000.00

WARRANTY PERIOD IS 24 MONTHS

Oxygen pressure regulator BKO-50DM

"WORKHORSE!"



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

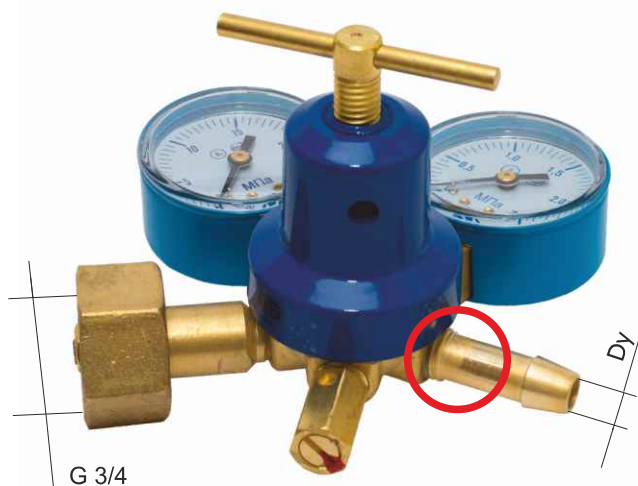
Designation	Hose, Dy	Order No.
BKO-50DM	9	006.000.00
BKO-50DM	6	006.000.01
BKO-50DM	9	006.000.03 *

* Inlet with thread SP21, 8x1/14 for small capacity cylinders of 0,4-12 l (delivery terms should be agreed)

Oxygen pressure regulator BKO-50DM (fixed nipple)

DISTINGUISHING FEATURES:

- ▶ FIXED NIPPLE
- ▶ PROFITABLE PRICE



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

Designation	Hose, Dy	Order No.
BKO-50DM	9	006.000.04
BKO-50DM	6	006.000.05

WARRANTY PERIOD IS 24 MONTHS

Propane pressure regulator BPO-5-4DM



Maximum capacity	5 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.3 (3,0) MPa (kgf/cm ²)
Weight, no more than	0.8 kg

Designation	Hose, Dy	Order No.
BPO-5-4DM	9	035.000.00
BPO-5-4DM	6	035.000.01

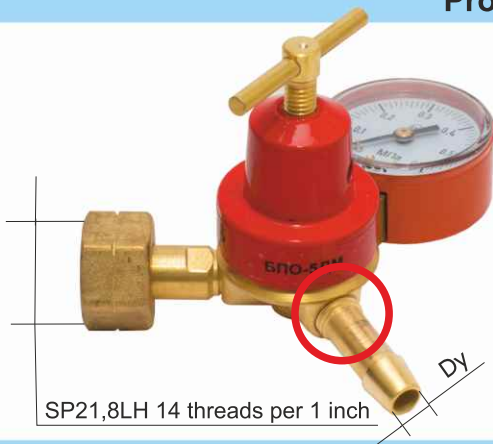
Propane pressure regulator BPO-5-DM



Maximum capacity	5 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.3 (3,0) MPa (kgf/cm ²)
Weight, no more than	0.5 kg

Designation	Hose, Dy	Order No.
BPO-5DM	9	008.000.02
BPO-5DM	6	008.000.03

Propane pressure regulator BPO-5-DM



DISTINGUISHING FEATURES:

- ▶ FIXED NIPPLE
- ▶ EFFICIENT PRICE

Maximum capacity	5 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.3 (3,0) MPa (kgf/cm ²)
Weight, no more than	0.5 kg

Designation	Hose, Dy	Order No.
BPO-5DM	9	008.000.04
BPO-5DM	6	008.000.05

Propane pressure regulator BPO-5-DM10

Propane pressure regulator with a constant gas working pressure.
Ideal for air torches GV and GVP supply with propane-butane.



Maximum capacity	5 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.2 (2,0) MPa (kgf/cm ²)
Weight, no more than	0.4 kg

Designation	Hose, Dy	Order No.
BPO-5DM	9	010.000.02
BPO-5DM	6	010.000.03

Acetylene pressure regulator BAO-5-4DM



Maximum capacity	5.0 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.15 (1.5) MPa (kgf/cm ²)
Weight, no more than	1.1 kg

LARGE SIZE FOR LARGE TASKS

Designation	Hose, Dy	Order No.
BAO-5-4DM	9	036.000.00

Acetylene pressure regulator BAO-5DM



Maximum capacity	5.0 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.15 (1.5) MPa (kgf/cm ²)
Weight, no more than	0.83 kg

Designation	Hose, Dy	Order No.
BAO-5DM	9	015.000.06

Acetylene pressure regulator BAO-5DM (AGA)



FOR CYLINDERS TYPE «AGA»

Maximum capacity	5.0 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.15 (1.5) MPa (kgf/cm ²)
Weight, no more than	0.65 kg

Designation	Hose, Dy	Order No.
BAO-5DM	9	015.000.07

* Delivery terms should be agreed.

WARRANTY PERIOD IS 24 MONTHS



PROVIDE:

- high precision and efficiency of gas supply;
- reliability;
- profitability;
- increased resistance to freezing.

Designated for gas pressure lowering, supplied from gas-distributing pipeline and automatic keeping of set working pressure.

* Oxygen pressure regulators can be used for air and other compatible gasses.

Designation	Gas	Inlet connection	Outlet connection	Order No.
a) SKO-10DM	Oxygen	M27x1.5	M16x1.5	040.000.00
b) SAO-10DM	Acetylene	M27x1.5LH	M16x1.5LH	043.000.00
c) SPO-6DM	Propane	M27x1.5LH	M16x1.5LH	042.000.00
c) SMO-35DM	Methane	M27x1.5LH	M16x1.5LH	041.000.00

SPECIAL PRESSURE REGULATORS



They are designed for reducing and regulating of gas pressure (**nitrogen, air, helium or hydrogen**), coming from a cylinder and automatic keeping of working gas pressure.

Main advantages of these pressure regulators:

- usability and reliability of the design
- all details contacting with gas are made of brass
- all gauges are checked in the certified laboratory
- reasonable price.

Hydrogen pressure regulator BVO-80DM



Maximum capacity	80 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

Designation	Hose, Dy	Order No.
BVO-80DM	9	024.000.00

Nitrogen pressure regulator BAZO-50DM



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

Designation	Hose, Dy	Order No.
BAZO-50DM	9	047.000.00

Air pressure regulator RV-50DM



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

Designation	Hose, Dy	Order No.
RV-50DM	9	047.000.01

Helium pressure regulator BGO-50DM



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.25 (12.5) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

Designation	Hose, Dy	Order No.
BGO-50DM	6/9	047.000.02

SATURATION PRESSURE REGULATORS



Saturation carbon dioxide (beer) pressure regulators are designed for pressure lowering of carbon dioxide, supplied from the cylinder, and keeping specified stable value of carbon dioxide pressure in beer dispensing system or carbonation system for special drinks with stable pressure of carbon dioxide (CO₂).

Different types of regulators are used for receiving one, two or three brands of beer. Regulators are coated with a layer of nickel, equipped with safety valve (pressure-release valve in system), valves for carbon dioxide supply shutoff.

Remember! It's allowed to pour out no more than 4-5 brands of beer of the same carbonization level by one pressure regulator. No more than 6 kegs of beer should be connected to one cylinder.

Advantages:

- ▶ Minimum inaccuracy of the set pressure.
- ▶ High accuracy of pressure keeping.
- ▶ Reliability.



The biggest capacity I per h (m ³ /h)	4000 (4.0)
Maximum inlet gas pressure, MPa (kgs/cm ²)	10.0 (100)
Maximum working gas pressure, MPa (kgs/cm ²)	0.3 (3.0)

Cylinder connection	Outlet q-ty	Valve	Outlet	Order No.
W 21.8	1	no	thread M16x1,5 + nipple Dy 8	031.000.03
W 21.8	2	no	thread G ¼ + nipple Dy 8	031.000.07
W 21.8	1	1	nipple Dy 8	031.000.04
W 21.8	2	2	nipple Dy 8	031.000.05
G 3/4	1	no	thread M16x1,5 + nipple Dy 8	031.000.00
G 3/4	2	no	thread G ¼ + nipple Dy 8	031.000.06
G 3/4	1	1	nipple Dy 8	031.000.01
G 3/4	2	2	nipple Dy 8	031.000.02

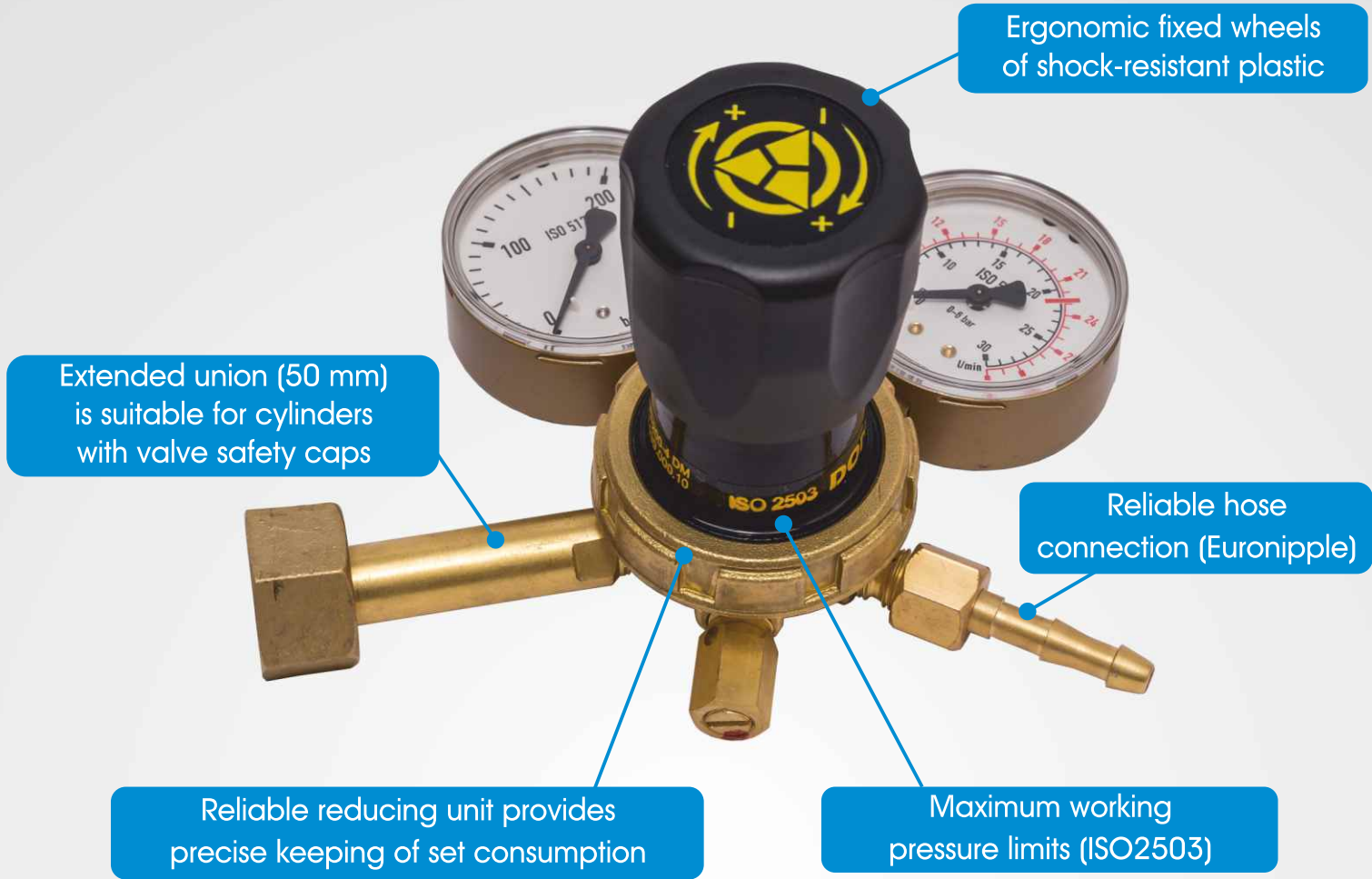
PRESSURE REGULATORS AND GAS FLOW REGULATORS for branded welding equipment



Pressure regulators and gas flow regulators are designed for working gas pressure lowering, supplied from cylinder and automatic keeping of the gases pressure constant.

Manufactured according to European standards EN ISO 2503. Maximum inlet pressure is up to 300 bar. Gauges are made according to ISO5171 and calibrated in certified laboratory. Gauges case diameter is 63mm, scale is in bars.

It's recommended to use these pressure regulators with import welding equipment.



CE
ISO 2503

LARGE DEMONSTRATIVE IMAGES OF GAUGES! (Case Ø63 mm)



Oxygen pressure regulator RO-200-2 DM



Maximum capacity	50 m ³ /h
Maximum gas inlet pressure	20 (200) MPa (kgf/cm ²)
Maximum gas working pressure	1.0 (10.0) MPa (kgf/cm ²)
Weight, no more than	1.2 kg

Designation	Hose, Dy	D	d	Order No.
RO-200-2 DM	6	G3/4	G1/4	044.000.10
RO-200-2 DM	9	G3/4	M16x1.5	044.000.11
RO-200-2 DM	9	W21.8	G1/4	044.000.12
RO-200-2 DM	6	W21.8	G1/4	044.000.13

Propane pressure regulator RP-25 DM

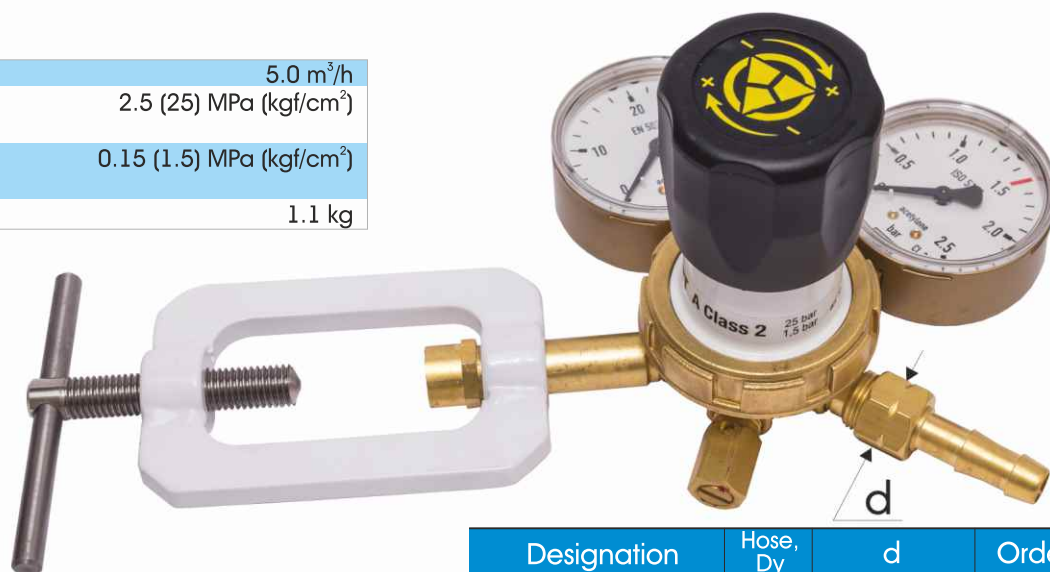


Maximum capacity	5 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.3 (3.0) MPa (kgf/cm ²)
Weight, no more than	0.8 kg

Designation	Hose, Dy	D	d	Order No.
RP-25 DM	9	W21.8LH	G3/8LH	035.000.10
RP-25 DM	9	W21.8LH	M16x1.5LH	035.000.11

Acetylene pressure regulator RA-25 DM

Maximum capacity	5.0 m ³ /h
Maximum gas inlet pressure	2.5 (25) MPa (kgf/cm ²)
Maximum gas working pressure	0.15 (1.5) MPa (kgf/cm ²)
Weight, no more than	1.1 kg



Designation	Hose, Dy	d	Order No.
RA-25 DM	9	G3/8LH	036.000.10
RA-25 DM	9	M16x1.5LH	036.000.11

Universal flow regulator RAr/CO-200-4 DM



Inlet pressure:

- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)

Maximum capacity

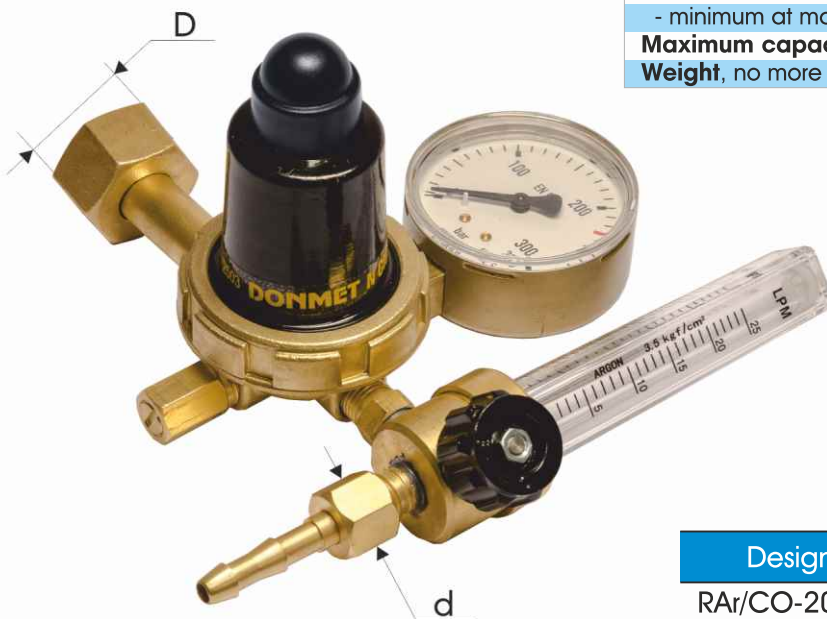
at maximum working pressure:

- index Ar on red scale	24 (1.44) l/min (m ³ /h)
- index CO ₂ on black scale	22.5 (1.35) l/min (m ³ /h)

Weight, no more than 0.8 kg

Designation	Hose, Dy	D	d	Order No.
RAr/CO-200-4 DM	9	W21.8	G1/4	039.000.10
RAr/CO-200-4 DM	6/9	G3/4	M16x1.5	039.000.11
RAr/CO-200-4 DM	6/9	W21.8	M16x1.5	039.000.12
RAr/CO-200-4 DM	6	G3/4	G1/4	039.000.13

Universal flow regulator RAr/CO-200-2 DM (with flowmeter)



Inlet gas pressure:

- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)

Maximum capacity

25 (1.5) l/min (m³/h)

Weight, no more than 1.3 kg

Designation	Hose, Dy	D	d	Order No.
RAr/CO-200-2 DM	9	W21.8	G1/4	032.000.10
RAr/CO-200-2 DM	6/9	G3/4	M16x1.5	032.000.11
RAr/CO-200-2 DM	6/9	W21.8	M16x1.5	032.000.12
RAr/CO-200-2 DM	6	G3/4	G1/4	032.000.13

GAS FLOW REGULATORS



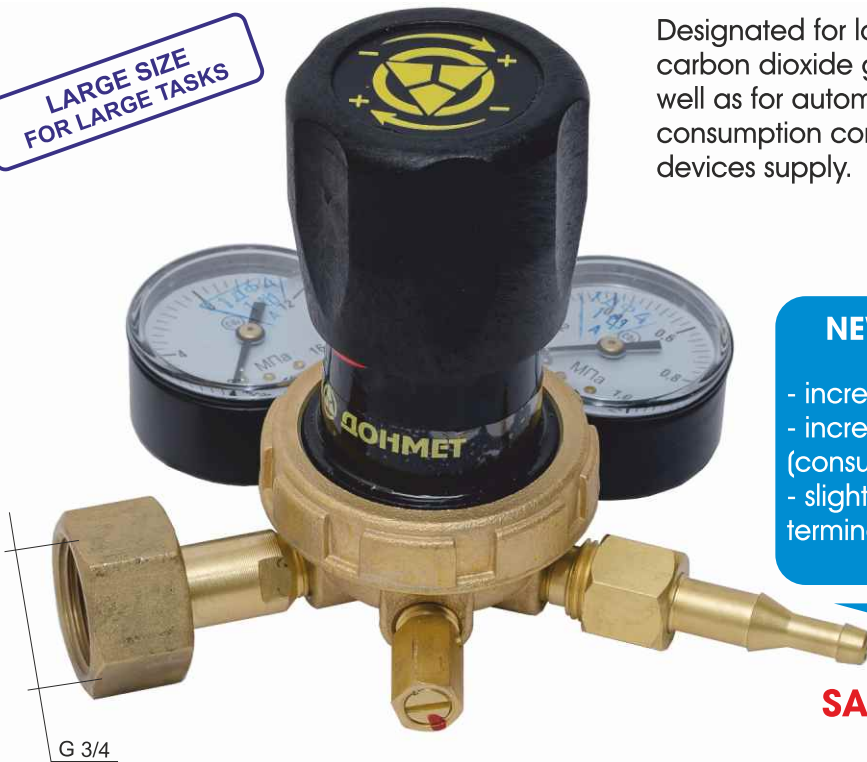
Gas flow regulators are designated for pressure lowering of argon, carbon dioxide gas or gas mixtures, supplied from cylinder, for automatic keeping of specified constant consumption of these gases during electrical welding and other equipment power supply.

Gas flow regulators are equipped with flowmeter-gauges with a protective gas consumption scale, graduated in l/min or flowmeter. Gas flow regulators are designed for supply of gun welders (MIG/MAG), argonarc units (TIG/WIG/GTAW) and automatic welding devices (GMAW).

Gas flow regulators (large size)

**LARGE SIZE
FOR LARGE TASKS**

Designated for lowering and control of pressure or flow of carbon dioxide gas or argon supplied from the cylinder, as well as for automatic keeping of specified pressure or gas consumption constant at electric welding stations and devices supply.



NEW REDUCING UNIT!!!

NEW REDUCING UNIT ADVANTAGES:

- increased wear-resistance and reliability;
- increased accuracy of set pressure (consumption) keeping;
- slight increase of pressure at a gas withdrawal termination.

SAVES UP TO 10-15% OF GAS!!!

Carbon-dioxide UR-6-4DM



Maximum capacity	1.05 (17.5) m ³ /h (l/min)
Maximum gas inlet pressure	10 (100) MPa (kgf/cm ²)
Maximum gas working pressure	0.6 (6.0) MPa (kgf/cm ²)
Weight, no more than	0.78 kg

Designation	Hose, Dy	Order No.
UR-6-4DM	9/6	037.000.01

Argon AR-40-4DM



Gas inlet pressure:	
- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)
Maximum capacity	
at maximum working pressure through a spout No. 4 Ø0,75 mm on red scale	
	2.4 (40) m ³ /h (l/min)

Designation	Hose, Dy	Order No.
AR-40-4DM	9/6	038.000.01

Universal (Ar/CO₂) AR-40/U-30-4DM



Inlet gas pressure:	
- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)
Maximum capacity	
at maximum working pressure:	
- index Ar on red scale	2.4 (40) m ³ /h (l/min)
- index CO ₂ on black scale	1.8 (30) m ³ /h (l/min)
Weight, no more than	0.8 kg

Designation	Hose, Dy	Order No.
AR-40/U-30-4DM	9/6	039.000.00

Ar/CO₂ flow regulator with flowmeter



NEW REDUCING UNIT!!!

**LARGE SIZE
FOR LARGE TASKS**

Inlet gas pressure:	
- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)
Maximum capacity	25 (1.5) l/min (m ³ /h)
Weight, no more than	1.1 kg

Designation	Hose, Dy	Order No.
AR-40/U-30-2DM	9/6	032.000.00

Ar/CO₂ flow regulator with 2 flowmeters



Inlet gas pressure:	
- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)
Maximum capacity	25 (1.5) l/min (m ³ /h)
Weight, no more than	1.4 kg

Designation	Hose, Dy	Order No.
AR-40/U-30-2DM	9/6	032.000.01

Universal flow regulator


Inlet gas pressure:

- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)

Maximum capacity

at maximum working pressure:

- index Ar on red scale	2.4 (40) m ³ /h (l/min)
- index CO ₂ on black scale	1.8 (30) m ³ /h (l/min)

Weight, no more than 0.8 kg

Designation	Hose, Dy	Order No.
AR-40/U-30DM	9/6	013.000.00

Argon flow regulator


Gas inlet pressure:

- maximum	20 (200) MPa (kgf/cm ²)
- minimum at maximum consumption	0.8 (8) MPa (kgf/cm ²)

Maximum capacity

at maximum working pressure through a spout No. 4 Ø0.75 mm on red scale

 2.4 (40) m³/h (l/min)

Designation	Hose, Dy	Order No.
AR-40-2DM	9/6	014.000.00

Carbon-dioxide flow regulator


Maximum capacity

 1.05 (17.5) m³/h (l/min)

Maximum inlet gas pressure

 10 (100) MPa (kgf/cm²)

Maximum gas working pressure

 0.6 (6.0) MPa (kgf/cm²)

Weight, no more than

0.78 kg

Designation	Hose, Dy	Order No.
UR-6DM	9/6	011.000.00

Carbon-dioxide flow regulator


Maximum capacity

at maximum working pressure through a spout No. 4 Ø0.75 mm on red scale

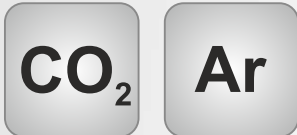
 2.4 (40) m³/h (l/min)

Designation	Hose, Dy	Order No.
U-30-2DM	9/6	017.000.00

For regulation and control of protective gases Ar and CO₂ consumption

DISTINGUISHING FEATURES:

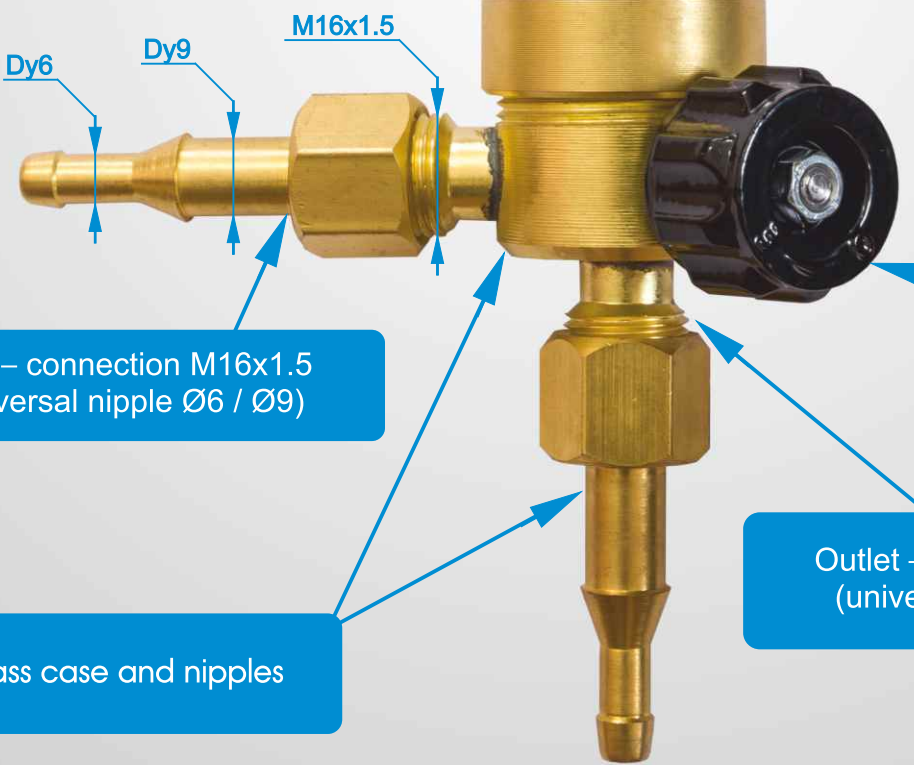
- clearness and accuracy of readings
- convenient visual inspection
- soft adjusting of protective gas consumption



Maximum value of consumption:
Ar – 25 l/min
CO₂ – 25 l/min

TECHNICAL CHARACTERISTIC

Capacity - 0-25 l/min
Working pressure - 3.5 kgf/cm²



Inlet – connection M16x1.5
(universal nipple Ø6 / Ø9)

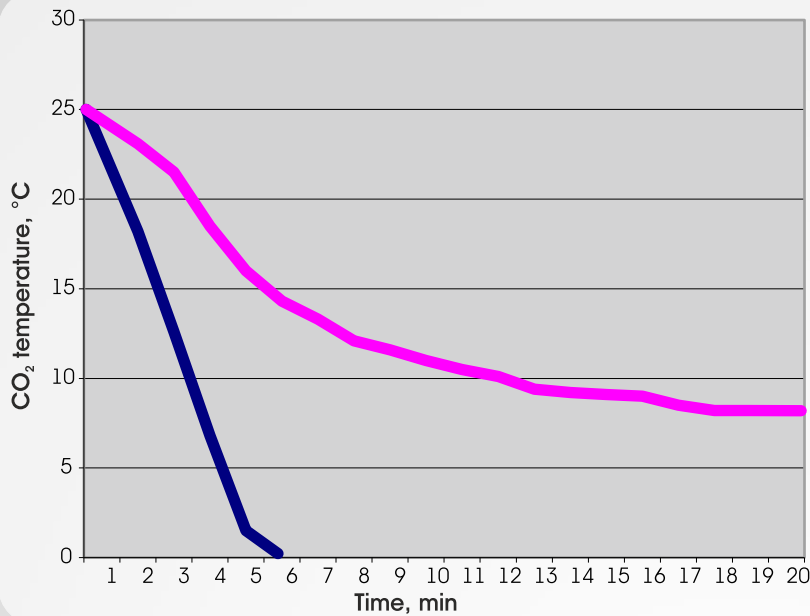
Protective gas flow regulator

Brass case and nipples

Outlet – connection M16x1.5
(universal nipple Ø6 / Ø9)

Designation	Hose, Dy	Order No.
FLOWMETER 25 Ar/CO ₂	6/9	013.200.04

It is purposed for heating of carbon dioxide (mix of gases) coming to a pressure regulator or a regulator from a cylinder; and supplying of protective gases to semiautomatic welding machines.



The diagram of carbon dioxide temperature change at a pressure regulator output, the set consumption to be 15 l/min

- The temperature mode while working with heater
- The temperature mode while working without the heater

- ▶ Prevents from frosting-up and formation of artificial ice in a pressure regulator
 - ▶ Provides stable supply of protective gas
 - ▶ Prolongs pressure regulator service life
 - ▶ Easy-to-use connection to a gas cylinder
- ▶ To be connected to a semiautomatic machine output or to a power supply unit



Designation	Voltage, V	Thread	Order No.
PE-01	36	BSPP 3/4" DIN 259	993.000.00
		W21.8-1/14 DIN 477	993.000.03
PE-02	42	BSPP 3/4" DIN 259	993.000.01
		W21.8-1/14 DIN 477	993.000.04
PE-03	24	BSPP 3/4" DIN 259	993.000.02
		W21.8-1/14 DIN 477	993.000.05

OPTIMIZER DM



DEVICE FOR SAVING AND CONTROL OF CARBON-DIOXIDE/ARGON OPTIMAL FLOW

Most of regulators for arc welding are set to operate with a maximum pressure – 6 kgf/cm^2 at consumption up to 32 l/min.

“Optimizer DM” provides required protection of welding bath at pressure of 1 kgf/cm^2 at the same consumption – 32 l/min. That allows to save up to 50% of gas.

- To be set at the outlet union of a pressure regulator;
- Saves up to 50% of protective gas (see table below);
- Reduces frequency of cylinders change;
- Reduces transport costs for cylinders filling;
- Saves money for gas purchase.

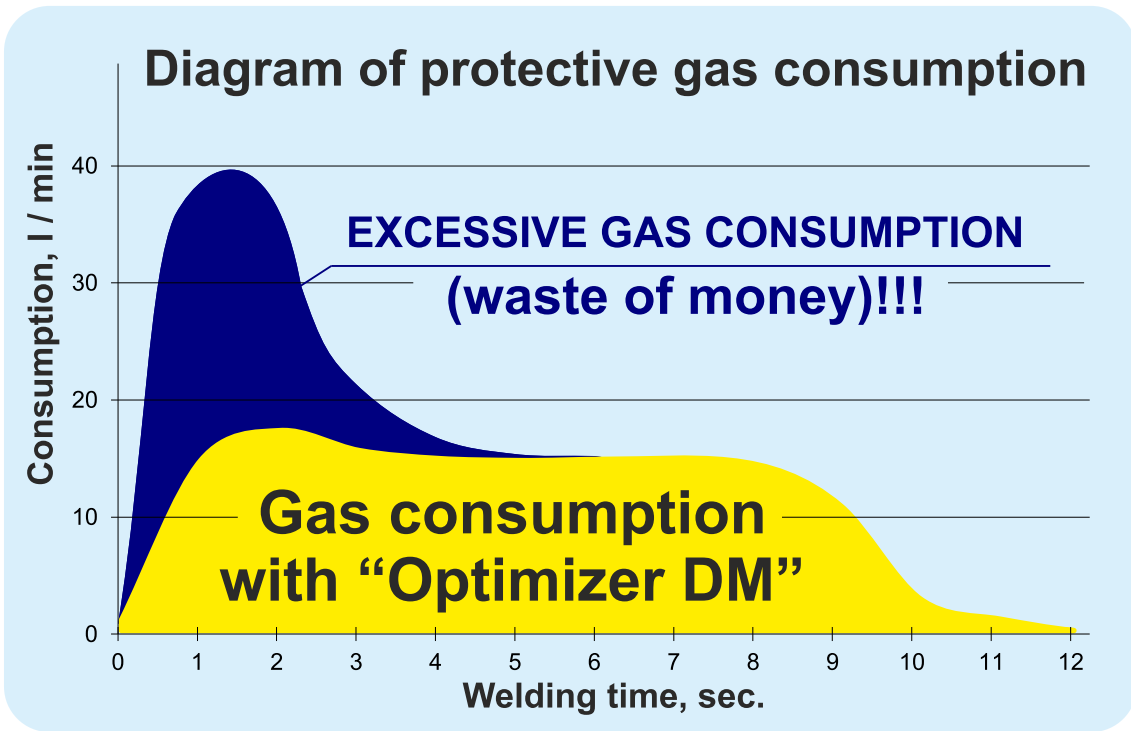


Designation	Hose, Dy	Order No.
Optimizer DM	9/6	045.000.00



“Optimizer DM” provides:

- optimum protective gas flow from the very beginning;
- lack of turbulent splash at the beginning of welding;
- twice more seams with the same gas quantity.



Annual economy of protective gas depending on welding mode

Gas consumption	50% (tacks)	30% (short seams)	18% (long seams)
10 cylinders/month	60	36	22
5 cylinders/month	30	18	11
2 cylinders/month	12	8	5

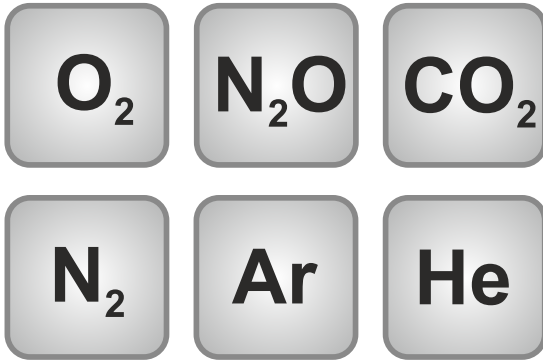
CYLINDER VALVES



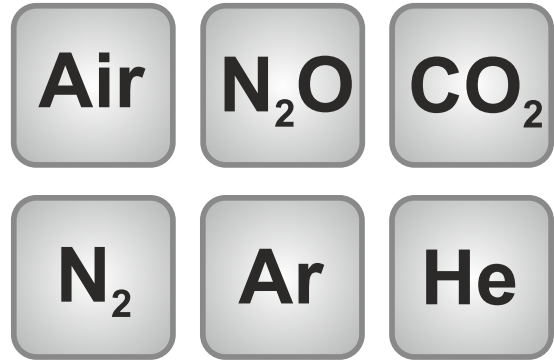
Designated for set up of steel cylinders of small and medium volume for oxygen, nitrogen, carbon dioxide, compressed air and other compatible gases for working pressure:

- ▶ Valve VK-20 - up to 20 MPa (200 kgf/cm²)
- ▶ Valve VV-40 - up to 40 MPa (400 kgf/cm²)

Oxygen cylinder valve VK-20



Compressed air cylinder valve VV-40

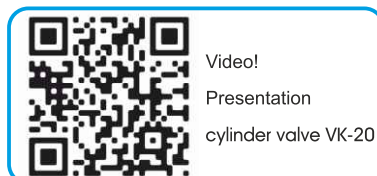


Working pressure	up to 20 (200) MPa (kgf/cm ²)
Valve weight	0.5 kg

Working pressure	up to 40 (400) MPa (kgf/cm ²)
Valve weight	0.6 kg

Designation	Order No.
Oxygen cylinder valve VK-20	942.900.01

Designation	Order No.
Compressed air cylinder valve VV-40	942.800.00



Video!
Presentation
cylinder valve VK-20

TEST STAND FOR GAS WELDING EQUIPMENT TESTING



Test stand is designed for testing of autogenous facilities and equipment of DONMET plant for conformity to requirements of GOST12.2.008-75, GOST 1077-79, GOST 5191-79, GOST 9356-75, GOST 13861-89, GOST 29091-91, NPAOP 0.00-1.30-01 as well as technical conditions requirements, developed according to specified standards.

The stand can be used for testing of facilities and equipment of other companies, but with the same connecting dimensions or upon availability of adaptors for them. The stand can be also used for testing under other standards, including requirements conforming to aforementioned standards.

The stand allows to make calibration of technical gauges!

Stand availability gives opportunity to perform welding equipment testing by our own forces, without participation of external companies, according to the standards requirements.

TECHNICAL CHARACTERISTIC

Pressure supplied for testing, MPa:	
nitrogen or neutral gas (argon, helium, neon etc.)	5.0...20.0
acetylene, no more than	0.12
oxygen, no more than	1.6
methane, no more than	0.3
propane-butane, no more than	0.3
Consumption, no more than, m³/h	
nitrogen or neutral gas (argon, helium, neon etc.)	80.0
acetylene	5.0
oxygen	50.0
methane	35.0
propane-butane	5.0
Check table weight, no more than, kg	73.0
Check table size, mm:	
maximum length	1520
minimum length	1320
width	780
height	1220
Gas dispensing kit size, mm:	
length	890
width	160
height	310
The kit weight, no more than, kg	127

LIST OF EQUIPMENT SUBJECT TO TESTING

- cutting torches type R1, R3;
- machine cutting torches;
- liquid fuel cutting torches type RK (kerosene blow torches);
- gas-welding torches type G2, G3, G3U;
- pressure regulators for gas-flame processing;
- cylinders for liquid fuel;
- acetylene generators (ASP);
- rubber hoses.

TEST STAND CALIBRATES TECHNICAL GAUGES!



STAND CONFIGURATION

- check table;
- gas dispensing kit;
- set of spare parts;
- set of instruction manuals, with detailed instructions for testing performance.



Test stand doesn't include a cylinder!

Designation

Order No.

Test stand for gas welding equipment testing SGI type 984DM

984.000.00

Delivery terms should be agreed.

WELDING KITS AND WELDING STATIONS



Welding kits and gas welding stations are designed for performance of different works, as well as gas-flame processing, if necessary.

Such works include as follows:

- gas-oxygen cutting;
- welding;
- brazing;
- heating etc.

The kit provides all the required tools for special works performance at work place.

At all stages the kit parts can be used separately, namely the kit items can operate and keep independently from each other.

Welding kit KGS-1-01A



Used gas fuel – acetylene (A).

CONFIGURATION:

R1 CUTTING TORCH DONMET 142

Preheating nozzle No.1A (for cutting torch R1)

Torch G2 DONMET 225 (with tips No.2,3)

Tip No.0 (to torch G2)

Tip No.1 (to torch G2)

Tip No.4 (to torch G2)

Oxygen pressure regulator BKO-50DM (Ø9)

Acetylene pressure regulator BAO-5DM (Ø9)

Flashback gas fuel arrester KOG DONMET

Flashback oxygen arrester KOK DONMET

Universal wrench

Compass (with circular rod)

It's supplied in gauffered carton packaging!

Designation	Order No.
KGS-1-01A	912.000.02

Delivery terms should be agreed.

Welding kit KGS-1-01P



Used gas fuel – Propane (P).

CONFIGURATION:

R1 CUTTING TORCH DONMET 142

Preheating nozzle No.1P (for cutting torch R1)

Torch G2 DONMET 225 (with tips No.2,3)

Oxygen pressure regulator BKO-50DM (Ø9)

Propane pressure regulator BPO-5DM (Ø9)

Flashback gas fuel arrester KOG DONMET

Flashback oxygen arrester KOK DONMET

Universal wrench

Compass (with circular rod)

It's supplied in gauffered carton packaging!

Designation	Order No.
KGS-1-01P	914.000.02

Delivery terms should be agreed.

VIP flame cutting kit



Used gas fuel – Propane (P).

CONFIGURATION:

Cutting torch R3 PROMIN 344

Nozzle No.2RM (for cutting torch R3 PROMIN)

Nozzle No.4RM (for cutting torch R3 PROMIN)

Nozzle No.5RM (for cutting torch R3 PROMIN)

Nozzle No.6RM (for cutting torch R3 PROMIN)

Oxygen pressure regulator BKO-50-DM (Ø9)

Propane pressure regulator BPO-5-4DM (Ø9)

Flashback gas fuel arrester KOG DONMET

Flashback oxygen arrester KOK DONMET

Universal wrench

It's supplied in gauffered carton packaging!

Designation	Order No.
VIP flame cutting kit	911.000.00

Delivery terms should be agreed.

WELDING KIT (portable)

The kit is designed for hand metal soldering while mounting and repairing works.

Used gas: propane-butane, oxygen.



CONFIGURATION:

- basket for the kit;
- propane cylinder (V 5 l);
- oxygen cylinder (V 2 l);
- propane pressure regulator BPO-5DM;
- oxygen pressure regulator BKO-50DM;
- torch G3U DONMET 247;
- collar for hose fixing d 6 mm - 4 pcs.;
- rubber hose I-16-0,63 GOST 9356-75 L = 5 m;
- rubber hose III-16-2 GOST 9356-75 L = 5 m;
- nipple-adaptor (SP21.8 / G3/4).

Designation

Order No.

Welding station

907.000.00

Delivery terms should be agreed.

KIT No. 1P (propane-oxygen cutting and soldering)

The kit is designed for hand cutting and soldering of metals with oxygen source (oxygen trunk, ramp or cylinder) with propane-butane as gas fuel.

Used gas: propane-butane, oxygen.



CONFIGURATION:

- propane cylinder V = 50 l;
- oxygen pressure regulator BKO-50DM;
- propane pressure regulator BPO-5DM;
- cutting torch R1 DONMET 142 P 6/6;
- torch G3U DONMET 247 6/6;
- collar for hose fixing d 6 mm - 4 pcs.;
- rubber hose, III class, d 6 mm - 40 m;
- flashback oxygen arrester KOK DONMET;
- flashback oxygen arrester KOK DONMET;
- flashback gas fuel arrester KOG DONMET;
- flashback gas fuel arrester KOG DONMET.

Designation

Order No.

Kit No. 1P

971.100.00

Delivery terms should be agreed.

KIT No. 2A (acetylene-oxygen cutting and soldering)



The kit is designed for hand cutting, welding and soldering of metals with oxygen source (oxygen trunk, ramp or cylinder) with acetylene as gas fuel.
Used gas: acetylene, oxygen.

CONFIGURATION:

- acetylene generator ASP-10;
- oxygen pressure regulator BKO-50DM;
- cutting torch R1 DONMET 142A 6/6;
- torch G2 DONMET 225A 6/6;
- collar for hose fixing, d 6 mm - 4 pcs.;
- rubber hose, III class, d 6 mm - 40 m;
- flashback gas fuel arrester KOG DONMET;
- flashback oxygen arrester KOK DONMET.

Designation	Order No.
Kit No. 2A	971.200.00

Delivery terms should be agreed.

Kit No. 3 (kerosene-oxygen cutting)



It is supplied in gauffered carton packaging!

The kit is designed for oxygen cutting of low-carbon steel and low-alloyed steel with oxygen source (oxygen trunk, ramp or cylinder) with liquid fuel as gas fuel (kerosene, fuel TS-1, diesel fuel).
Used gas: oxygen, kerosene, diesel fuel.

CONFIGURATION:

- liquid fuel tank BG-08DM;
- oxygen pressure regulator BKO-50DM;
- kerosene torch RK "Vognik" 181;
- collar for hose fixing, d 9 mm - 2 pcs.;
- collar for hose fixing, d 6 mm - 2 pcs.;
- rubber hose, III class, d 9 mm - 20 m;
- rubber hose, II class, d 6 mm - 10 m;
- flashback gas fuel arrester KOG DONMET.

Designation	Order No.
Kit No. 3	971.300.02

Delivery terms should be agreed.

Kit No. 6 for soldering of cables and copper pipes



The kit is designed for mounting works on low-temperature soldering.
Used gas: propane-butane.

CONFIGURATION:

- propane cylinder V = 5 l;
- propane pressure regulator BPO-5-10DM;
- torch GV type (DONMET 246);
- collar for hose fixing, d 6 mm - 2 pcs.;
- rubber hose, I class, d 6 mm - 10 m.

Designation	Order No.
Kit No. 6	971.600.00

Delivery terms should be agreed.

OXYGEN DISPENSING STATION PGK-50-3 DM

Oxygen dispensing station PGK-50-3 DM is mounted at oxygen supply line in place of gas welding works performance. It's purposed for lowering of pressure supplied to oxygen station and for its supply to the place of consumption for gas flame facilities supply.



Oxygen	GOST 5583-78
Station inlet pressure	26-200 kgf/cm ²
Outlet pressure (working)	1-12.5 kgf/cm ²
Capacity, no more than	50 m ³ /h
Inlet connection dimensions	G1/2-B
Outlet connection dimensions	M16x1.5
On pressure regulator base	BKO-50-4 DM
Overall dimensions	445x220x170 mm
Weight	5.8 kg

Designation	Order No.
PGK-50-3 DM	827.000.00

Delivery terms should be agreed.

OXYGEN DISPENSING STATION PGK-10-3 DM

Oxygen dispensing station PGK-10-3 DM is mounted at oxygen supply line in place of gas welding works performance. It's purposed for lowering of pressure supplied to oxygen station and for its supply to the place of consumption for gas flame facilities supply.



Oxygen	GOST 5583-78
Station inlet pressure	16 kgf/cm ²
Outlet pressure (working)	0.5 kgf/cm ²
Capacity, no more than	10 m ³ /h
Inlet connection dimensions	G1/2-B
Outlet connection dimensions	M16x1.5
On pressure regulator base	SKO-10-2
Overall dimensions	445x220x170 mm
Weight	4.6 kg

Designation	Order No.
PGK-10-3 DM	842.000.00

Delivery terms should be agreed.

GAS FUEL DISPENSING STATION PGU-25-3 DM



Gas fuel dispensing station PGU-25-3 DM is mounted at gas supply line in place of gas welding works performance. It's purposed for supply of gas flame facilities by gas fuel, supplied gas pressure control, gas lines protection from flashbacks, and from penetration of oxygen and air from the side of consumption.

Gas fuel	Propane, Methane and alternate fuel
Station inlet pressure	2.0 kgf/cm ²
Relative pressure ratio P	15 %
Capacity, no more than	25 m ³ /h
Inlet connection dimensions	G1/2-B
Outlet connection dimensions	M16x1.5 LH
Overall dimensions	445x220x170 mm
Weight	5.7 kg

Designation	Order No.
PGU-25-3 DM	827.600.00

Delivery terms should be agreed.

GAS FUEL DISPENSING STATION PGA-15-3 DM



Gas fuel dispensing station PGA-15-3 DM is mounted at gas supply line in place of gas welding works performance. It's purposed for supply of gas flame facilities by gas fuel, supplied gas pressure control, gas lines protection from flashbacks, and from penetration of oxygen and air from the side of consumption.

Gas fuel	Acetylene
Station inlet pressure	2.0 kgf/cm ²
Relative pressure ratio P	15 %
Capacity, no more than	15 m ³ /h
Inlet connection dimensions	G1/2-B
Outlet connection dimensions	M16x1.5 LH
Overall dimensions	445x220x170 mm
Weight	5.7 kg

Designation	Order No.
PGA-15-3 DM	839.000.00

Delivery terms should be agreed.

ARGON / CO₂ DISPENSING STATION PG AR/CO₂-25-3 DM



Argon/CO₂ dispensing station PG AR/CO₂-25-3 DM is purposed for lowering of pressure supplied to station of argon, carbon dioxide gas or their mixture and supply to place of consuming – for welding equipment supply.

Supplied gas	Argon, CO ₂ and their mixtures
Inlet pressure	0.5...1.6 (5...16) MPa (kgf/cm ²)
Working pressure	0.35 (3.5) MPa (kgf/cm ²) (is not regulated)
Maximum capacity	25 l/min
Inlet connection dimensions	G 1/2-B
Outlet connection dimensions	M16x1.5
Overall dimensions	445x220x170 mm
Weight, no more than	4.6 kg

Designation	Order No.
PG AR/CO ₂ -25-3 DM	846.000.00

Delivery terms should be agreed.

Dear customers of Donmet plant!

Our goods have individual and group packing, every unit is put into separate vacuum polyethylene packaging, then if a customer wants, it is put into an individual box of gauffered carton.

Average and big batches of goods are delivered in group packing, which is a box of gauffered carton with dimensional sizes of 550x380x180 mm.

Such packing provides full safety of our goods during transportation from DONMET plant to customers. Vacuum packaging protects from various atmosphere factors and from moisture and dust as well, the carton box protects from any mechanical damages.

Besides, you can see illustrated schemes of equipment connection and short illustrated operational instructions on the individual carton packing.

PACKAGING SAMPLES





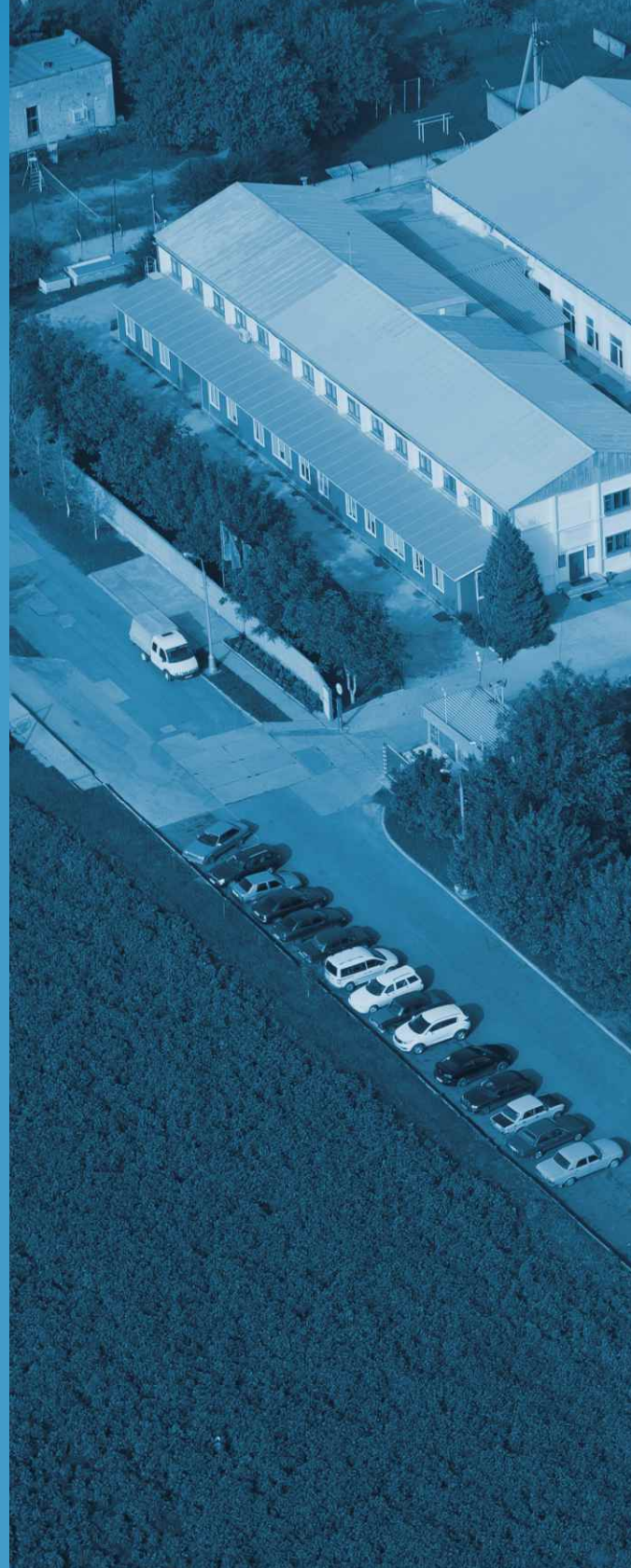
Video presentation of Donmet plant



Donmet via YouTube service
(DONMETtv)



Donmet via social network Facebook



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