

CUTTING • WELDING • BRAZING



English

AUTOGENOUS EQUIPMENT PLANT



DONMET

®

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SPECIAL EQUIPMENT

FOR CUTTING ☉ WELDING ☉ BRAZING ☉ HEATING



DONMET team
03.10.2018 r.

Dear customers of “DONMET” plant!

DONMET Autogenous Equipment Plant Ltd. will develop and manufacture special-purpose gas welding equipment. Specialists of our company have a great deal of experience in designing heavy-duty cutting torches for cutting and conditioning of carbon steel; torches for heating, drying, brazing, welding, hardening and other kinds of gas-flame treatment. The equipment is manufactured according to the technical project of the purchaser to meet their specific requirements.

All purpose-made products undergo tests and trials at the “Donmet” plant’s research laboratory. The lab is accredited by NAAU (National Accreditation Agency of Ukraine) in the field of gas-flame equipment testing (accreditation certificate No. 2T622 dd. 08.06.20011).

The pressure gauges used in “Donmet” products are calibrated at the plant’s gauge laboratory (certificate П375-2012 dd. 23.04.2012).

In 2002 the company implemented a quality control system according to DSTU ISO 9001:2001 (certificate No. UA 2.021.06846-12 as of 09.04.2012), which allows us to deliver consistency in quality of production.

Please don't hesitate to contact us!

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DONMET specialists will provide professional answers to your questions!



*J. Volodymyr Sergiyenko,
Director of DONMET plant,
guarantee the quality
of our products.*



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of mass-produced equipment!



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MANUAL CUTTING TORCHES OF INCREASED POWER



Dmitry Ruban
Head of Research Laboratory
at DONMET plant

Unique special-purpose cutting torches!

Cutting torches from this series have been widely used at large metallurgical plants around Ukraine and Russia. They have proved to be powerful, reliable and safe for metallurgists.

MAIN APPLICATION:

- for parting cutting of low-carbon steel 500mm thick and more;
- for scarfing of surface defects on steel ingots, shaped castings and ferrous rolled metal.

«DONMET» 502

heavy-duty cutting torch for professionals



Purposed for: hand topping of ingots, cast products, forged pieces and large-size scrap metal of low-carbon steel up to 500mm thick. It is also used for smelting of surface flaws in cast and forged pieces. The cutting torch has proved itself at such enterprises as PJSC “Ilyich Iron and Steel Works”, PJSC “Azovstal Iron & Steel Works”, PJSC “ArcelorMittal Kryviy Rih”, JSC “Zaporozhsteel”, OJSC “EVRAZ - Consolidated West Siberian Metallurgical Plant” (“Zapsib”) in foundry and drop-hammer departments.

If assembled with a special-purpose cutting nozzle, the cutting torch can be used for eliminating surface flaws in rough parts (gouging).

Version and used gas fuel:

- «DONMET» 502 M – natural gas (methane);
- «DONMET» 502 P – propane-butane.

The torch can be customized as per individual requirements (length, head bending angle, etc.)!

Item	Gas fuel	Order No.
RPM “DONMET” 502 M	Methane	502.000.20
RPM “DONMET” 502 P	Propane	502.000.21

TECHNICAL SPECIFICATION

Cutting thickness, mm		up to 350	350 - 500
Cutting nozzle		350	500
Preheating nozzle		500M/500P	
Injector		500	
Pressure, kgf/cm ²	oxygen (nominal)	10	12
	gas fuel M/P	0,5-1,2 / 0,2-1,2	
Consumption, m ³ /h	oxygen (total)	75	110
	gas fuel M/P	3,0-12,2 / 4,0-5,7	
Cutting torch weight no more than, kg		1,97	
Cutting torch length no more than, mm		1300	
Hose inner diameter, mm		9	



SUPER «DONMET» 536 ideal for cutting thick metal



Purposed for: hand oxy-gas parting cutting of scrap metal, topping of low-carbon steel up to 500mm thick. Cutting torch “Donmet” 536 operates on natural gas (methane). It is successfully used at PJSC “Novokramatorsky Mashinostroitelny Zavod”, PJSC “SpezAvtomatika” and other enterprises.

Design features:

- supersonic nozzle;
- preheating nozzle, cutting nozzle and mixing tube made of copper;
- solid valve stems made of stainless steel. Service life of more than 15 000 cycles;
- direct flow head;
- resistant to flashbacks due to an elaborate mixing chamber design;
- comfortable aluminium pad.

Item	Order No.
RPM “DONMET” 536	536.000.00

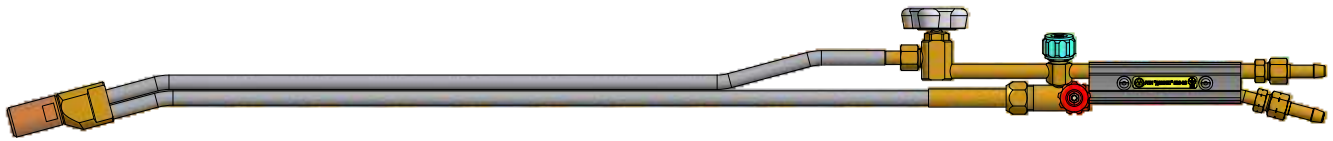
TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	oxygen	7 - 9
	methane	0,6 - 1,5
Consumption, m ³ /h	oxygen	60 - 75
	methane	7 - 12
Cutting thickness, mm		300 - 500
Cutting torch length no more than, mm		950
Cutting torch weight no more than, kg		1,4
Hose inner diameter, mm		9



«DONMET» 536-06

for cutting thick metal with low-pressure oxygen



Purposed for: hand oxy-gas parting cutting of scrap metal, topping of low-carbon steel ingots up to 700mm thick. Used gas fuel: natural gas (methane).

It is successfully used at PJSC "Novokramatorsky Mashinostroitelny Zavod".

Design features:

- quick opening and closing of the cutting oxygen valve due to the triple thread at its stem;
- preheating and cutting oxygen nozzles made of copper;
- replaceable cutting nozzles (central channel diameter – 5-6mm);
- tip tubes made of stainless steel;
- operation allowed at oxygen pressure 6-7 kgf/cm²;
- solid valve stems of stainless steel. Service life of more than 15 000 cycles;
- direct flow head;
- resistant to flashbacks due to an elaborate design of the mixing chamber;
- comfortable aluminium pad;
- cutting oxygen knob from the cylinder valve.

Item	Order No.
RPM "DONMET" 536-06	536.000.06

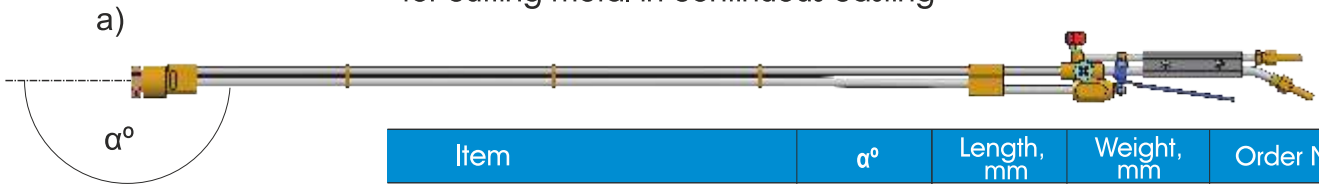
TECHNICAL SPECIFICATION

Inlet pressure, kgf/cm ²	oxygen	6 - 7
	methane	0,7 - 1,5
Consumption, m ³ /h	oxygen	41 - 120
	methane	up to 5
Cutting thickness, mm		300 - 700
Cutting torch length no more than, mm		1130
Cutting torch weight no more than, kg		1,64
Hose inner diameter, mm		up to 10
Connection unit thread, mm	oxygen	M16x1,5
	methane	M16x1,5LH

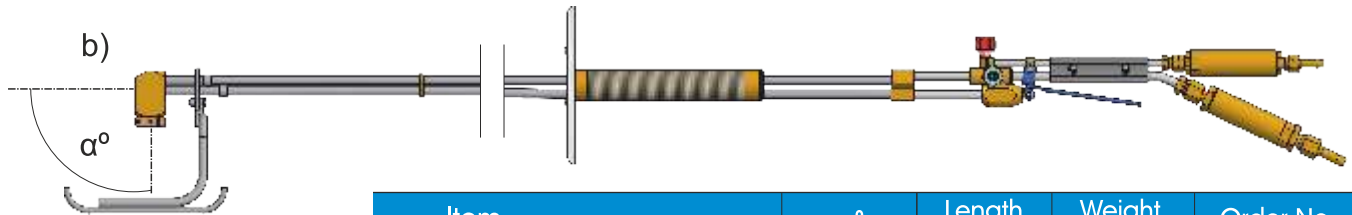


«DONMET» 537

for cutting metal in continuous casting



Item	α°	Length, mm	Weight, mm	Order No.
RPM «DONMET» 537	0	1000	2,4	537.000.00
RPM «DONMET» 537	0	1500	2,85	537.000.01
RPM «DONMET» 537	0	2000	3,2	537.000.02
RPM «DONMET» 537	0	2500	3,7	537.000.03



Item	α°	Length, mm	Weight, mm	Order No.
RPM «DONMET» 537	90	2500	6,5	537.000.04
RPM «DONMET» 537	90	4000	7,5	537.000.05
RPM «DONMET» 537 (without valves)	90	2600	5,9	537.000.06
RPM «DONMET» 537 (without valves)	90	4000	7,3	537.000.07
RPM «DONMET» 537	50	2000	3,5	537.000.08
RPM «DONMET» 537	90	2000	3,7	537.000.09
RPM «DONMET» 537	50	1600	3,5	537.000.10

Recommended additional kitting:
-nozzles (p.69)

Purposed for: hand parting cutting of low-alloy steel 50-500 mm thick.

Cutting torches «DONMET» 537-01 and «DONMET» 537-02 (order No. 537.000.01 and order No. 537.000.02) are successfully used in Russia (Belgorod) for emergency cutting in continuous casting.

Cutting torch «DONMET» 537-03 (order No. 537.000.03) is used at PJSC «AzovElectroStal» for emergency cutting during continuous casting. The nozzles are unified with those used for machine cutting.

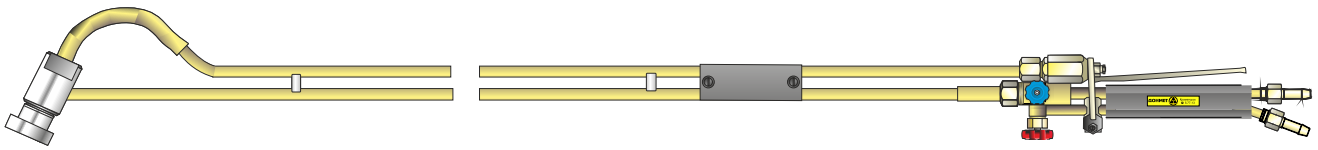
Cutting torches «DONMET» 537-04 (order No. 537.000.04) and «DONMET» 537-05 (order No. 537.000.05) are successfully used at «Dneprostal Metallurgical Plant Ltd.» for emergency cutting in continuous casting. The nozzles are unified with those used for machine cutting.

TECHNICAL SPECIFICATION

Order No.	537.000.00 537.000.01 537.000.02 537.000.03	537.000.04 537.000.05 537.000.06 537.000.07 537.000.08 537.000.09 537.000.10
Cutting thickness, mm	50 - 500	
Inlet pressure, kgf/cm ²	oxygen	10 - 12
	natural gas (methane)	0,5 - 1,5
Consumption, m ³ /h	oxygen	19 - 60
	natural gas (methane)	19 - 25
Grasp width, mm	10 - 14	
Recommended distance between the nozzle and the item	100 - 140	
Head thread, mm	M32x2	
Connection unit thread, mm	oxygen	M16x1,5 G1/2
	natural gas (methane)	M16x1,5 LH G3/8 LH

«DONMET» 503

broadband cutting torch for manual surface scarfing



Purposed for: scarfing of surface defects in steel ingots, shaped castings and rolled ferrous metal products. It can be used for flame gouging of separate grooves as well as surfaces.

It has proven itself at such enterprises as PJSC “ArcelorMittal Kryviy Rih”, JSC “Zaporozhsteel”, PJSC “Azovstal Iron and Steel Works”, PJSC “Ilyich Iron and Steel Works”, CJSC “Donetsksteel Iron and Steel Works”.

Used gas fuel: natural gas (methane).

The cutting nozzle is made of copper and can be removed and replaced. Upon client’s request it can be supplied with the cutting oxygen diameter either 8mm or 10mm. To reduce the part's wear as a result of friction against the surface of the metal being worked on, the preheating nozzle is overlaid with a wear-resistant material.

The torch can be customized as per individual requirements (length, head bending angle, etc.)!

Item	Gas fuel	Order No.
“DONMET” 503	Methane	503.000.10

TECHNICAL SPECIFICATION

Inlet pressure, kgf/cm ²	oxygen	1,0 - 1,4 (10 - 14)
	methane	0,09 - 0,12 (0,9 - 1,2*)
Consumption, m ³ /h	oxygen	250 - 300
	methane	13 - 16
One-pass track width, mm		up to 80
Track depth, mm		up to 10
Speed of gouging, m/min.		up to 12
Cutting torch length no more than, mm		2000
Cutting torch weight no more than, kg		3,0
Hose inner diameter, mm		
for oxygen		9
for gas fuel		9*

* If the natural gas network pressure is below the minimum values, the 12 mm hoses are to be used.



«DONMET» 504

broadband cutting torch for surface scarfing of rolled metal



Purposed for: flame scarfing of surface defects in steel ingots, shaped castings and ferrous rolled metal. It can be used for flame gouging of separate grooves as well as surfaces.

It is successfully used at PJSC “Dneprovsky Integrated Iron and Steel Works named after Dzershinsky” and PJSC “Alchevsk Iron and Steel Works”.

Design features: light-weight cutting torch with an extended handle for one-hand operations. The other worker's hand is free which enables them to speed up the process of metal ignition by supplying a low-carbon steel rod to the heat zone. To control the cutting oxygen flow with the same hand as the worker holds the cutting torch, the cutting oxygen valve is made flag-type with triple thread (operations are carried out with a thumb).

Item	Gas fuel	Order No.
“DONMET” 504	Methane	504.000.00

TECHNICAL SPECIFICATION

Inlet pressure,	oxygen	10 - 12
kgf/cm ²	methane	0,8 - 0,9*
Consumption,	oxygen	260 - 300
m ³ /h	methane	4,0 - 7,0
One-pass track width, mm		60 - 80
Track depth, mm		up to 5
Cutting torch length no more than, mm		1750
Cutting torch weight no more than, kg		2,4
Hose inner diameter, mm		
for oxygen		12
for gas fuel		9*

* If the natural gas network pressure is below the minimum values, the 12 mm hoses are to be used.

«DONMET» 507, 517

broadband cutting torch for manual surface scarfing



Purposed for: scarfing of surface defects in steel ingots, shaped castings and rolled ferrous metal products. It can be used for flame gouging of separate grooves as well as surfaces.

Cutting torch “Donmet” 517 operates on coke gas and is successfully used at PJSC “Azovstal Iron and Steel Works” and PJSC “Alchevsk Iron and Steel Works”.

Cutting torch “Donmet” 507 operates on coke-oven gas and is successfully used at CJSC “Makiivka Iron and Steel Works”.

Design features: solid head with an inset cutting nozzle; lever-type cutting oxygen starting valve.

Item	Order No.
“DONMET” 507	507.000.10
“DONMET” 517	517.000.10

TECHNICAL SPECIFICATION

		“DONMET” 507	“DONMET” 517
Inlet pressure	oxygen, kgf/cm ²	10 - 12	8 - 10
	gas fuel, mm H ₂ O	300 - 500	140 - 180
Consumption, m ³ /h	oxygen	258 - 300	90 - 108
	gas fuel	6,5 - 8,0	6,5 - 6,8
One-pass track width, mm		up to 40	20 - 30
Track depth, mm		up to 7	up to 5
Cutting torch length no more than, mm		2000	1500
Cutting torch weight no more than, kg		3,0	2,0
Hose inner diameter, mm		12/12	9/9
Connection unit thread diameter:			
oxygen		M20x1,5	M16x1,5
gas fuel		M20x1,5LH	M16x1,5LH



«DONMET» 508

heavy-duty cutting torch for manual flame gouging



Cast-iron molds for making steel ingots are prone to formation of voids, fractures and other flaws at their inner surface which may complicate the ingots' removal from the mold. The only manufacturer of special gas-flame equipment for metallurgy works in Ukraine "Donmet" plant produces a special cutting torch for cast-iron mold scarfing. It has proven itself at such enterprises as PJSC "Azovstal Iron and Steel Works", PJSC "Ilyich Iron and Steel Works", JSC "Zaporozhsteel", etc.

Design features: single-block nozzle with a pressed antiwear bush; in-nozzle gas mixing ensuring operational safety.

Used gas fuel: natural gas (methane).

Purposed for:

- ▶ elimination of flaws at the cast-iron mold inner surface;
- ▶ smelting of defects in grey-iron and steel castings;
- ▶ scarfing of low-carbon ingots, blooms and slabs.

The torch can be customized as per individual requirements (length, head bending angle, etc.)!

Item	Length, mm	Order No.
"DONMET" 508	2000	508.000.01
"DONMET" 508	2500	508.000.02

TECHNICAL SPECIFICATION

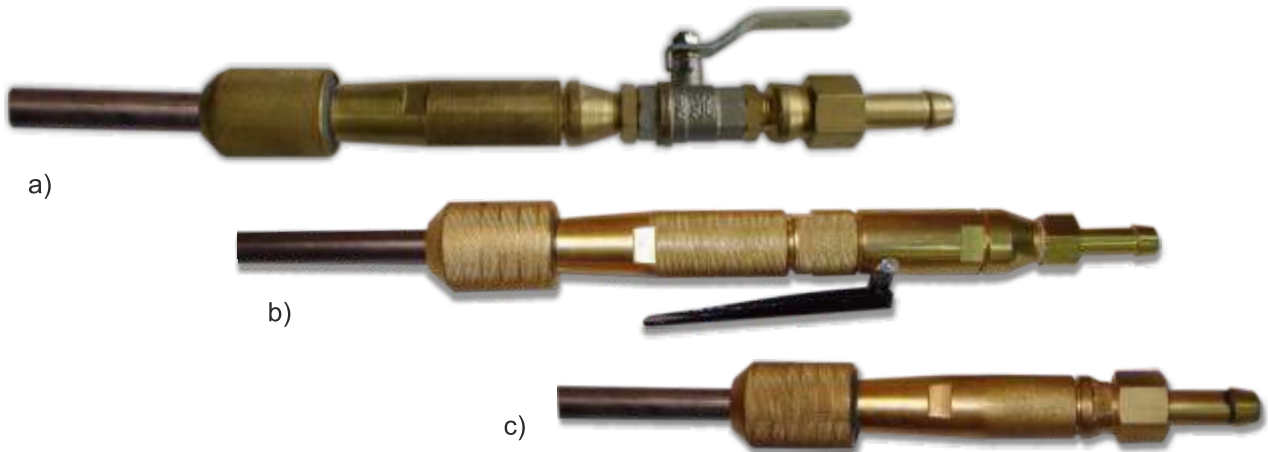
Inlet pressure, kgf/cm ²	oxygen	10 - 12
	methane	0,9 - 1,2*
Consumption, m ³ /h	oxygen	670 - 720
	methane	18 - 23
One-pass track width, mm		100 - 120
Track depth, mm		5 - 20
Cutting torch length no more than, mm		2000 / 2500
Cutting torch weight no more than, kg		6 / 7,5
Hose inner diameter, mm		
for oxygen		12
for gas fuel		9*
Connection unit thread, mm		
oxygen		M22x1,5
gas fuel		M16x1,5LH

* If the natural gas network pressure is below the minimum values, the 12 mm hoses are to be used.



«DONMET» 514

for operational safety during oxygen-lance cutting



Lance-holder **purposed for:** securing the lance and adjusting the oxygen feed flow while cutting. It is successfully used at PJSC “ArcelorMittal Kryviy Rih”, PJSC “Ilyich Iron and Steel Works”, CJSC “Donetsksteel Iron and Steel Works”, etc.

“Donmet” plant has mastered mass production of lance-holders in three versions: with the cutting oxygen valve attached to the handle, without the valve and with a ball valve.

The delivery set contains spare parts for the lance tube mounting (8 to 21 mm in diameter – as per customer's specification).

To replace the lance tube it is required to unscrew the fastener, remove the remaining stub of the tube from the lance-holder and insert a new tube, then tighten the fastener using sealing gaskets.

Oxygen-lance cutting is burning holes in the metal with a jet of oxygen that is fed through a steel tube (the lance). This method is used for cutting through thick materials including steel and grey iron, cutting anvil-blocks, scrap, topping of large-size ingates, etc. without the preheating flame. The cutting process is initiated by local heating of the metal and the tube end to the iron kindling temperature (1350°C – 1400°C) by an outside heat source (cutting torch, electric arc, etc.). The continuous cutting process is kept up due to the heat generated during the combustion of iron in the part being worked on and in the lance tube. Thus, the lance tube is an expendable material.

TECHNICAL SPECIFICATION

Cutting thickness, mm	150 - 300	300 - 600	600 - 1000	1000 - 2000
Oxygen pressure, kgf/cm ²	5 - 6	6 - 8	8 - 10	10 - 15
Oxygen consumption, m ³ /h	40 - 50	50 - 70	70 - 90	90 - 120

Guaranteed service life – 12 months.



Item	L, mm/m, kg	Order No.
a) “DONMET” 514	385 / 1,7	514.000.71
b) “DONMET” 514	355 / 1,8	514.000.01
c) “DONMET” 514	260 / 1,2	514.000.31



FLUX CUTTING SET 954

for cutting cast-iron and stainless steel up to 200mm thick



Purposed for: manual parting cutting of stainless steel, grey iron and other materials that cannot be cut by ordinary oxy-fuel cutting methods.

The nature of oxy-flux cutting is that a jet of gas fuel continuously carries powdered flux based on small-granular iron powder (grain size from 0,02 to 0,04mm) to the cutting area. While burning, iron generates additional heat, lowers the concentration of alloying constituents in the reaction zone and thins the dross, thus facilitating its removal from the cutting zone.

Delivery set contains:

- flux batcher with an adjustable swirling-type mixer (flux tank of 20kg capacity) equipped with a check valve and a flashback arrester;
- cutting torch with in-nozzle gas mixing KFR-352 with a ball valve;
- two gas-feeding rubber-fabric hoses (9mm);
- cart for the flux batcher;
- propane pressure regulator BPO-5DM.

The basis of all fluxes for oxy-flux cutting is iron powder that in most cases is used just as it is, especially for cutting steel and grey iron.

Item	Order No.
KFR 954	954.000.00

TECHNICAL SPECIFICATION

Nozzle marking	Cutting thickness, mm		Nominal pressure, kgf/cm ²			Oxygen consumption, m ³ /h		Propane consumption, m ³ /h max	Methane consumption, m ³ /h max	Flux consumption, g/min. nominal	Speed of cutting, mm/min.
	stainless steel	grey iron	oxygen	propane	methane	preheating max	cutting max				
FRM1	up to 20		8	0,1-0,2	0,1-0,2	4,4	2,4	1,2	2,2	35-50	270-240
FRM3	up to 80		6,5	0,1-0,2	0,1-0,2	5,75	5,7	1,6	2,9	60-70	240-180
FRM5	up to 200		7	0,2-0,3	0,2-0,4	6,0	16,5	1,8	3,1	100-140	180-60

An example of cutting a sheet of metal 12x18H10T 20mm thick



An example of cutting a block of cylinders

An example of cutting a rough part of SCh-20 60mm thick



An example of cutting rolled metal 150mm thick of steel 12x18H10T

FLUX CUTTING SET 954-07

for cutting cast-iron and stainless steel up to 200mm thick

Purposed for: manual parting cutting of stainless steel, grey iron and other materials that cannot be cut by ordinary oxy-fuel cutting methods.

The nature of oxy-flux cutting is that a jet of gas fuel continuously carries powdered flux based on small-granular iron powder (grain size 0,02...0,04mm) to the cutting area. While burning iron generates additional heat, lowers the concentration of alloying constituents in the reaction zone and thins the dross, thus facilitating its removal from the cutting zone.

Delivery set contains:

- flux batcher with an adjustable swirling-type mixer (flux tank of 20kg capacity) equipped with a safety device and a flashback arrester;
- cutting torch with in-nozzle gas mixing KFR-352-15/16/17 with an attachment for supplying flux;
- three gas-feeding rubber-fabric hoses (9mm);
- cart with an attachment;
- propane pressure regulator.

The basis of all fluxes for oxy-flux cutting is iron powder that in most cases is used just as it is, especially for cutting steel and grey iron.



Item	Order No.
KFR 954-07	954.000.07

TECHNICAL SPECIFICATION

Cutting thickness, mm		3 - 200
Inlet pressure, kgf/cm ²	oxygen	2,5 - 8
	gas fuel, A/ P/M	0,3-0,5 / 0,2-0,4
Maximum consumption, m ³ /h	oxygen	2,26-22,4 / 2,5-27,3
	acetylene	0,25 - 1,5
	propane-butane	0,35 - 0,88
	methane	0,77 - 1,94
Cutting torch weight no more than, kg		1,48
Cutting torch length no more than, mm		900
Cutting torch head thread		M22x1,5
Head seating cone angle, °		30°+3`



KFR 954-01

for cutting grey iron and stainless steel up to 400mm thick



Purposed for: manual parting cutting of stainless steel, grey iron and other materials that cannot be cut by ordinary oxy-fuel cutting methods.

The nature of oxy-flux cutting is that apart from the main preheating flame powdered flux is continuously carried to the cutting zone. Neutral gases (nitrogen or compressed air) are used for delivering flux to the cutting zone. The basis of all fluxes for oxy-flux cutting is iron powder that in most cases is used just as it is, especially for cutting steel and grey iron.

Delivery set contains:

- flux batcher with an adjustable swirling-type mixer (flux tank of 30kg capacity) equipped with a check valve and a flashback arrester;
- cutting torch with in-nozzle gas mixing KFR 352-11 and attachable implements;
- propane pressure regulator BPO-5DM;
- oxygen pressure regulator BKO-50DM;
- oxygen pressure regulator BKO-50-4DM;
- three gas-feeding rubber-fabric hoses (9mm in diameter);
- cart for the flux batcher.

Item	Order No.
KFR 352	954.000.01

TECHNICAL SPECIFICATION

Cutting thickness, mm	up to 400	
Working gas pressure, kgf/cm ²	oxygen	7 - 9
	natural gas (methane)	0,6 - 1,5
	propane-butane	0,5 - 1,5
	compressed air or nitrogen	1,5 - 2,0
Maximum consumption, m ³ /h	oxygen	60 - 75
	natural gas (methane)	7 - 12
	propane-butane	5 - 9
	compressed air or nitrogen	2 - 4
Iron powder grain size, μm	40	
Flux consumption, g/min	300 - 400	
Cutting torch weight no more than, kg	2,5	
Cutting torch length no more than, mm	1270	
Cutting torch head thread	G3/8	
Hose inner diameter, mm	9	



KFR 352-14

flux-injection manual cutting torch
for cutting grey iron and stainless steel up to 400mm thick



Purposed for: manual flux-injection cutting of stainless steel, grey iron.
The cutting torch is used as part of the flux-cutting set KFR 954-01, order No. 954.000.01 (p.15).

Design features:

- supersonic nozzle;
- preheating and cutting oxygen nozzles made of copper;
- quick opening and closing of the cutting oxygen valve due to the use of cutting oxygen lever;
- mixture tube made of stainless steel;
- nitrogen and compressed air used as flux carriers;
- attachment for supplying flux made of stainless steel.

Item	Order No.
KFR 352-14	954.000.14

KFR 352-15/16/17

flux-injection manual cutting torch
for cutting grey iron and stainless steel up to 200mm thick



Purposed for: manual flux-injection cutting of stainless steel, grey iron.
The cutting torch is used as part of the flux-cutting set KFR 954-07, order No. 954.000.07 (p.14).

Design features:

- quick opening and closing of the cutting oxygen valve due to the use of cutting oxygen lever;
- tubes made of stainless steel;
- nitrogen and compressed air used as flux carriers;
- attachment for supplying flux made of stainless steel.

Item	Gas fuel	Connection thread	Order No.
KFR 352-15	Propane-butane Methane	1/4" 3/8LH M16x1,5	954.000.15
KFR 352-16	Propane-butane Methane	M16x1,5 M16x1,5LH M16x1,5	954.000.16
KFR 352-17	MAPP	M16x1,5 M16x1,5LH M16x1,5	954.000.17

MACHINE CUTTING TORCHES OF INCREASED POWER



Unique machine cutting torches of increased power are intended for parting cutting of high-thickness low-carbon steel. A distinguishing feature of these cutting torches is increased safety during cutting. It is ensured by the cutting torch design with inside-the-nozzle and outside-the-nozzle gas mixing. The cutting torches intended for continuous casting plants are equipped with a water-cooling system which allows their long-term operation at extremely high ambient temperatures.

The cutting torches have proved themselves at such steelworks as LLC “ELEKTROSTAL”, PJSC “Mariupol Integrated Iron and Steel Works named after Ilych”, PJSC “Azovstal Iron & Steel Works”, PJSC “ArcelorMittal Kryviy Rih”, PJSC “Energomashspetsstal” and other enterprises around Ukraine, Russia and Belarus.

«DONMET» 364

water-cooled cutting torch for machine cutting in continuous casting



Purposed for: machine parting cutting of low-carbon steel sheet and rolled metal up to 300mm thick in continuous casting.

Design features: in-nozzle gas mixing; single-block nozzle; gas consumption adjustment via the gas-cutting machine control panel; water-cooling system.

It is successfully used at "TSA Steel-Group Ltd." in Pavlograd, Ukraine.

This cutting torch is similar to the cutting torch "A.L.B.A" AOG 300 DR-91 code 04PM650.

Used gas fuel: natural gas (methane).

Recommended additional kitting:
-nozzles (see p.69)

Item	Order No.
"DONMET" 364	364.000.00

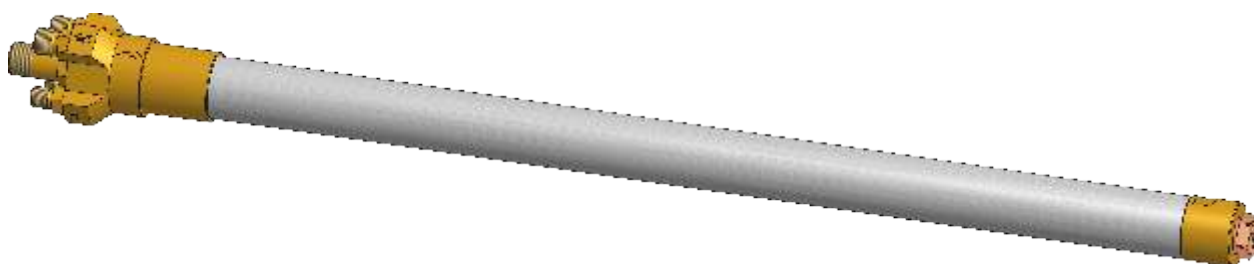
TECHNICAL SPECIFICATION

Cutting thickness (rated), mm		200	300
Distance between the cutting torch and the item, mm		100 - 140	
Nozzle throat cutting channel diameter, mm		1,8	2,5
Inlet pressure, kgf/cm ²	cutting oxygen	10 - 12	
	preheating oxygen	1,5 - 2,5	
	natural gas (methane)	0,70 - 1,5	
Nominal consumption, m ³ /h	cutting oxygen	21 - 26	30 - 45
	preheating oxygen	14 - 19	
	natural gas (methane)	19,0 - 25,0	
Connection unit thread, mm	cutting oxygen	G1/2	
	preheating oxygen	G3/8	
	natural gas (methane)	G1/2 LH	
Casing diameter, mm		42	
Cutting torch head thread		M28x2	
Cutting torch length no more than, mm		548	
Cutting torch weight no more than, kg		3,1	



«DONMET» 365

water-cooled cutting torch for machine cutting in continuous casting



Purposed for: machine parting cutting of hot low-carbon steel rough parts from 50 to 500mm thick in continuous casting.

It has been successfully used at “ElektroStal Ltd.”.

Design features: in-nozzle gas mixing; single-block nozzle; gas consumption adjustment via the gas-cutting machine control panel; water-cooling system.

The cutting torch is compatible with and can work with the gas-mixing nozzles of such trademarks as Ge-Ga and A.L.B.A.

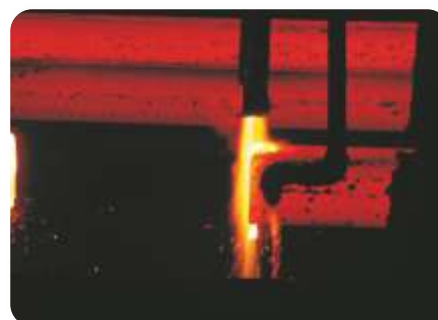
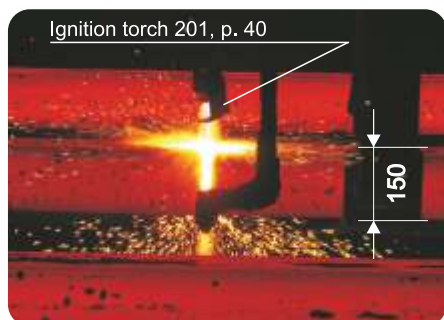
Used gas fuel: natural gas (methane).

Recommended additional kitting:
-nozzles (see p.69)

Item	Order No.
“DONMET” 365	365.000.00
“DONMET” 365-01	365.000.01

TECHNICAL SPECIFICATION

Cutting thickness rated, mm	200	300	500
Distance between the cutting torch and the item	100 - 400		
Nozzle throat cutting channel diameter, mm	1,8	2,5	3,2
Inlet pressure, kgf/cm ²	cutting oxygen	10 - 12	
	preheating oxygen	1,5 - 2,5	
	natural gas (methane)	0,7 - 1,5	
Rated consumption, m ³ /h	cutting oxygen	21 - 26	30 - 45
	preheating oxygen	14 - 19	
	natural gas (methane)	19 - 20	
Casing diameter, mm	50		
Cutting torch head thread	M28x2	M32x2	
Cutting torch length no more than, mm	1000		
Cutting torch weight no more than, kg	10,0		
Order No.	365.000.00	365.000.01	



«DONMET» 511

high-power cutting torch for machine cutting with external gas mixing



Purposed for: machine parting cutting of low-carbon steel from 300 to 800 mm thick (ingots, forged pieces, etc.). It has been successfully used at such enterprises as PJSC “Energomashspetsstal” and PJSC “ArcelorMittal Kryviy Rih”.

The cutting torch's most distinguishing feature is external gas mixing that happens outside the nozzle which makes flashbacks impossible.

Design features: separate feed channels for cutting oxygen and preheating oxygen; gas consumption adjustment via the gas-cutting machine control panel.
Used gas fuel: natural gas (methane).

The delivery set contains nozzle No. 800 (order No. 511.001.00). As per customer's order the cutting torch can be supplied with nozzles No. 300 (order No. 511.001.01) and No. 500 (order No. 511.001.02).

Item	Order No.
“DONMET” 511	511.000.00

TECHNICAL SPECIFICATION

Cutting thickness, mm	300	500	800
Nozzle No.	300	500	800
Speed of cutting, nominal, mm/min	140	90	65
Width of cut, nominal, mm	10	20	30
Inlet pressure of cutting oxygen, kgf/cm ²	6	6	7
Inlet pressure of preheating oxygen, kgf/cm ²	1,5	2	2,5
Inlet pressure of natural gas (methane), kgf/cm ²	0,8	0,8	0,8
Consumption of cutting oxygen, m ³ /h	30	80	170
Consumption of preheating oxygen, m ³ /h	15	28	33
Consumption of natural gas (methane), m ³ /h	15	27	32
Hose inner diameter, mm	12		
Cutting torch length no more than, mm	1050		
Cutting torch weight no more than, kg	3,0		
Connection unit thread diameter:			
cutting oxygen	M20x1,5		
preheating oxygen	M20x1,5		
gas fuel	M20x1,5LH		

Cutting a slab 250 mm thick



«DONMET» 516

heavy-duty cutting torch for machine cutting



Purposed for: machine parting cutting of low-carbon steel from 300 to 1200mm thick (forged pieces, ingots, topping, etc.). It is successfully used at PJSC “Energomashspetsstal”.

Design features: in-nozzle gas mixing, single-block nozzle, protective casing, gas consumption adjustment via the gas-cutting machine control panel.

Used gas fuel: natural gas (methane).

The delivery set contains the nozzle for cutting steel up to 800mm thick. As per customer's order, it can be supplied with nozzles for cutting steel up to 1200mm thick.

Item	Order No.
“DONMET” 516	516.000.00

TECHNICAL SPECIFICATION

Nozzle designation	3M	5M	8M	12M
Order No.	513.100.00	513.100.01	513.100.02	513.100.03
Cutting thickness, mm	300	500	800	1200
Nozzle cutting channel diameter, mm	3	5	7	9
Inlet pressure of cutting oxygen, kgf/cm ²	8,5	6	6	3,5
Inlet pressure of preheating oxygen, kgf/cm ²	3,5			
Inlet pressure of natural gas (methane), kgf/cm ²	0,2 - 0,9			
Consumption of cutting oxygen, m ³ /h	37,6	77	150,9	160,4
Consumption of preheating oxygen, m ³ /h	no more than			12,0
Consumption of natural gas (methane), m ³ /h	no more than			6,0
Hose inner diameter, mm (cutting oxygen/preheating oxygen/gas fuel)	16 / 12 / 16			
Cutting torch length no more than, mm	900			
Cutting torch weight no more than, mm	7,1			
Connection unit thread diameter:				
cutting oxygen	M24x1,5			
preheating oxygen	M20x1,5			
gas fuel	M24x1,5LH			



Topping of an ingot
900mm in diameter



Cutting of casting rejects
up to 450mm thick



«DONMET» 523

water-cooled cutting torch for machine cutting



Purposed for: machine parting cutting of low-carbon steel parts from 50 to 500mm thick. It is successfully used at PJSC “Tyazhpresmmash” (Ryazan, Russia).

Design features: in-nozzle gas mixing; single-block nozzle; gas consumption adjustment via the gas-cutting machine control panel, water-cooling system.

The cutting torch is compatible and can work with the gas mixing nozzles of such trademarks as “DONMET”, Ukraine; FRAMAG, Germany; “MESSER GREISHEIM”, Germany.

Used gas fuel: natural gas (methane).

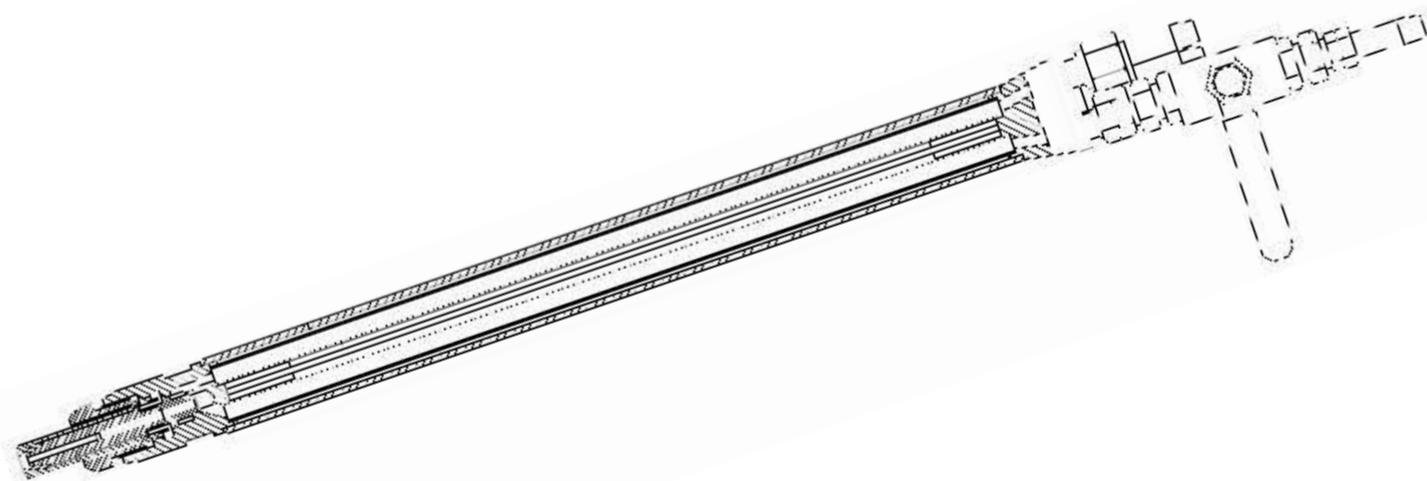
Item	Order No.
“DONMET” 523	523.000.00

TECHNICAL SPECIFICATION

Nozzle designation		3M	5M	8M
Order No.		513.100.00	513.100.01	513.100.02
Cutting thickness, rated, mm		300	500	800
Nozzle No.		300	500	800
Nozzle cutting channel diameter, mm		3	5	7
Inlet pressure, nominal, kgf/cm ²	cutting oxygen	8,5	6	6
	preheating oxygen	3,5		
	natural gas (methane)	0,2 - 0,9		
	water from	2,0		
Consumption, nominal, m ³ /h	cutting oxygen	37,6	77	150,9
	preheating oxygen	no more than		12,0
	natural gas (methane)	no more than		6,0
Hose inner diameter, mm		(CO/PO/GF/Water) 16 / 12 / 16 / 12		
Cutting torch length no more than, mm		1100		
Cutting torch weight no more than, kg		6,0		
Connection unit thread diameter:				
cutting oxygen		G3/4		
preheating oxygen		G1/2		
gas fuel		G3/4LH		
water		G1/2		

KFR 352-21

flux-injection machine cutting torch



Machine cutting torch “KFR” 352-21 is intended for machine flux-injection cutting of stainless steel and grey iron. The cutting torch is used with flux-injection cutting set “KFR” 954, order No. 954.000.00 (p.13).

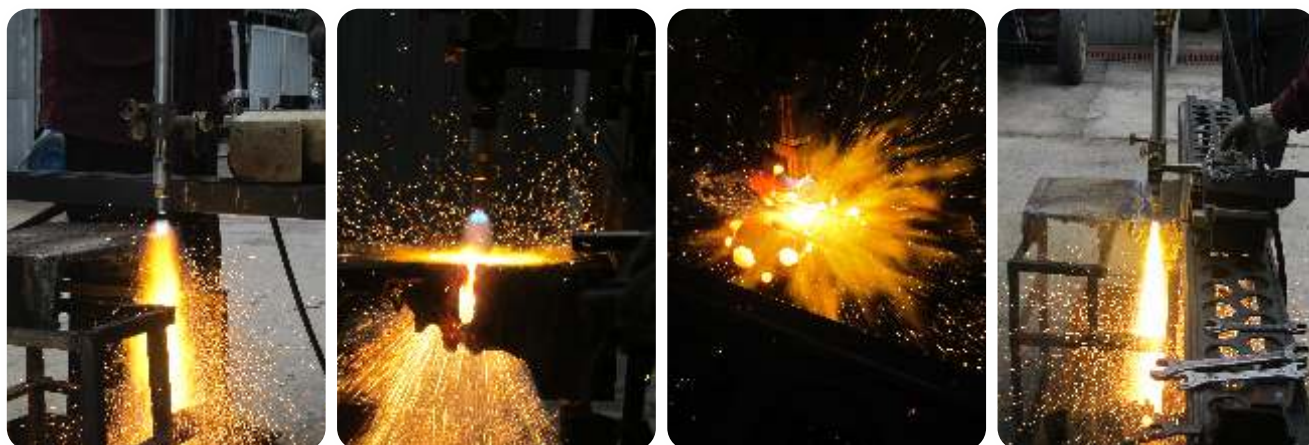
The cutting torch can work with gas cutting machines produced in Poland, Czech Republic, Italy, of such trademarks as “Messer Greisheim”, Germany, “SAF”, France, “ASHNM”, USA, “WESCOL”, Great Britain, “Tanaka”, Japan.

Propane-butane and natural gas (methane) are used as flux-carrying gas fuels. The cutting torch is entirely made of stainless steel.

Item	Order No.
KFR 352-21	352.000.21

TECHNICAL SPECIFICATION

Cutting thickness, mm		up to 150
Working gas pressure, kgf/cm ²	cutting oxygen	6 - 8
	preheating oxygen	2 - 4
	flux-carrying gas	0,1 - 0,4
Maximum consumption, m ³ /h	oxygen	22,5
	natural gas (methane)	3,1
	propane-butane	1,8
Cutting torch weight no more than, kg		1,3
Cutting torch length no more than, mm		520
Cutting torch head thread		M22x1,5
Head seating cone angle, °		30° + 3'
Hose inner diameter, mm		9



“DONMET” 807

portable device set for continuous cutting



Designed for continuous cutting of low carbon steel rough parts of square and rectangle shape.

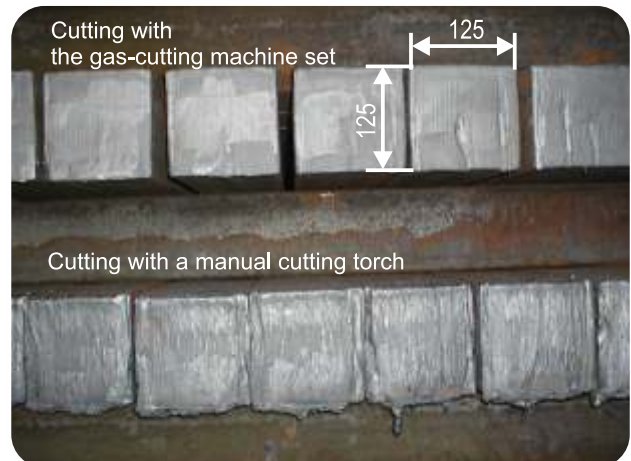
The set consists of: gas-cutting machine CG-100 equipped with a support shaft, cutting torch “DONMET” 345, torch “DONMET” 290 and a collector. The collector is attached to the cutting torch and torch by gas hoses.

Smooth continuous speed adjustment of the set movement is effected by means of a mechanic variable-speed gear.

Item	Order No.
“DONMET” 807	807.000.00

TECHNICAL SPECIFICATION

Cutting thickness, mm	5 - 200
Cutting speed, mm/min	80 - 800
Oxygen pressure, kgf/cm ²	6 - 10
Natural gas (methane) pressure, kgf/cm ²	0,4 - 2,0
Oxygen consumption, depending on cutting thickness, m ³ /h	12,8 - 42,6
Natural gas (methane) consumption, depending on cutting thickness, m ³ /h	5,7 - 7,0
Weight, kg	25



OXY-GAS TORCHES

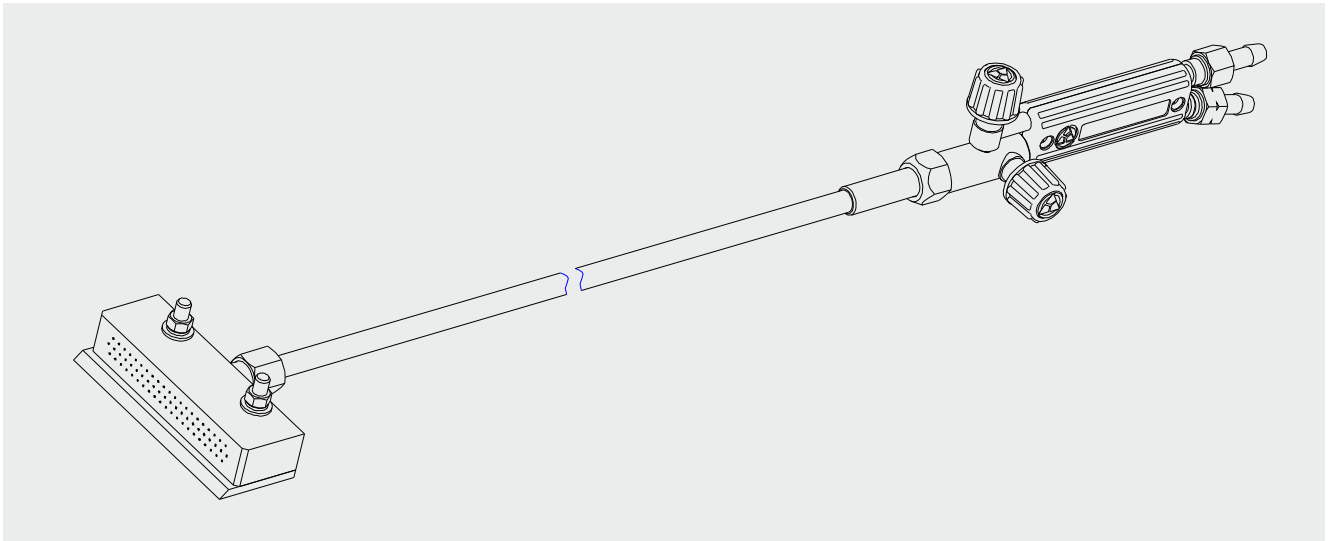


Unique special-purpose torches have been widely used in a variety of industries (from food processing to metallurgy) at enterprises across Ukraine and Russia.

The equipment has proved to be safe and reliable.

The torches are used for different kinds of flame treatment: heating, drying, burning, pre-heating, etc.

«DONMET» 203
linear torch for oxy-gas heating

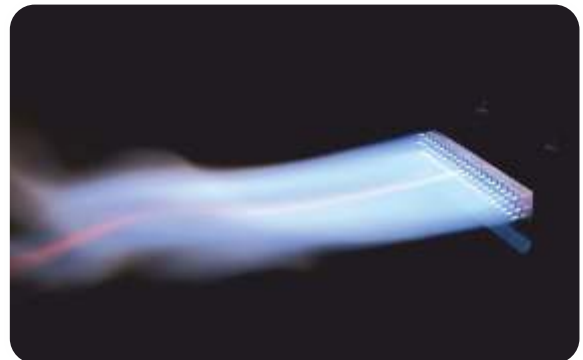


Purposed for: oxy-gas heating and flame scarfing. The torch has a detachable scraper.

Item	Order No.
«DONMET» 203	203.000.06

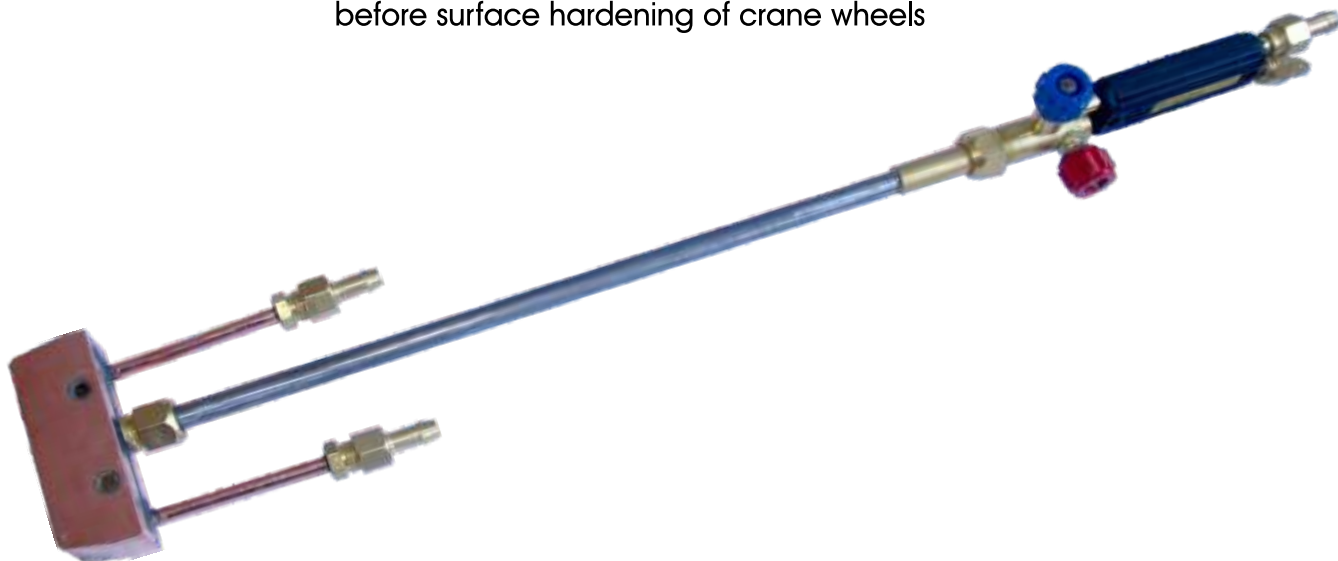
TECHNICAL SPECIFICATION

Work surface breadth B, mm		100
Pressure, kgf/cm ²	oxygen	6 - 7
	natural gas (methane)	0,7 - 1,2
Consumption no more than, m ³ /h	oxygen	10,2 - 12,1
	natural gas (methane)	4,2 - 5,0
Hose inner diameter, mm		9
Overall dimensions, mm		1140x130x90
Torch weight no more than, kg		2,1



«DONMET» 203-08

linear torch for heating
before surface hardening of crane wheels

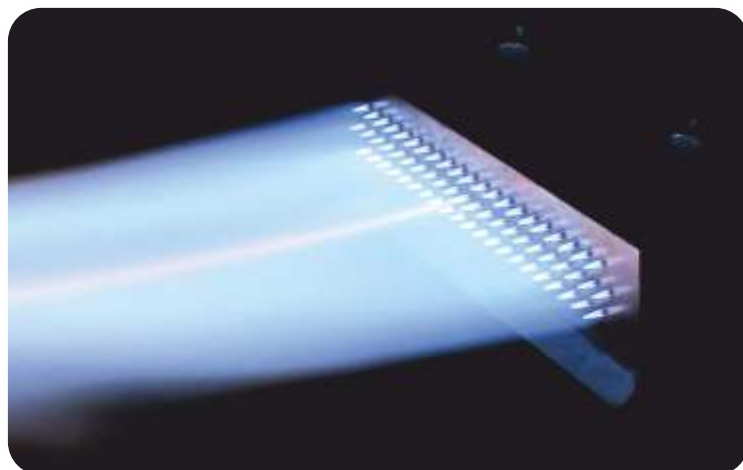


Purposed for: oxy-gas heating before surface treatment of crane wheels 100mm wide.
When the wheel is rotating, the linear torch 203 can heat the surface layers up to 10-50mm deep before surface heat treatment (hardening).

Item	Order No.
“DONMET” 203	203.000.08

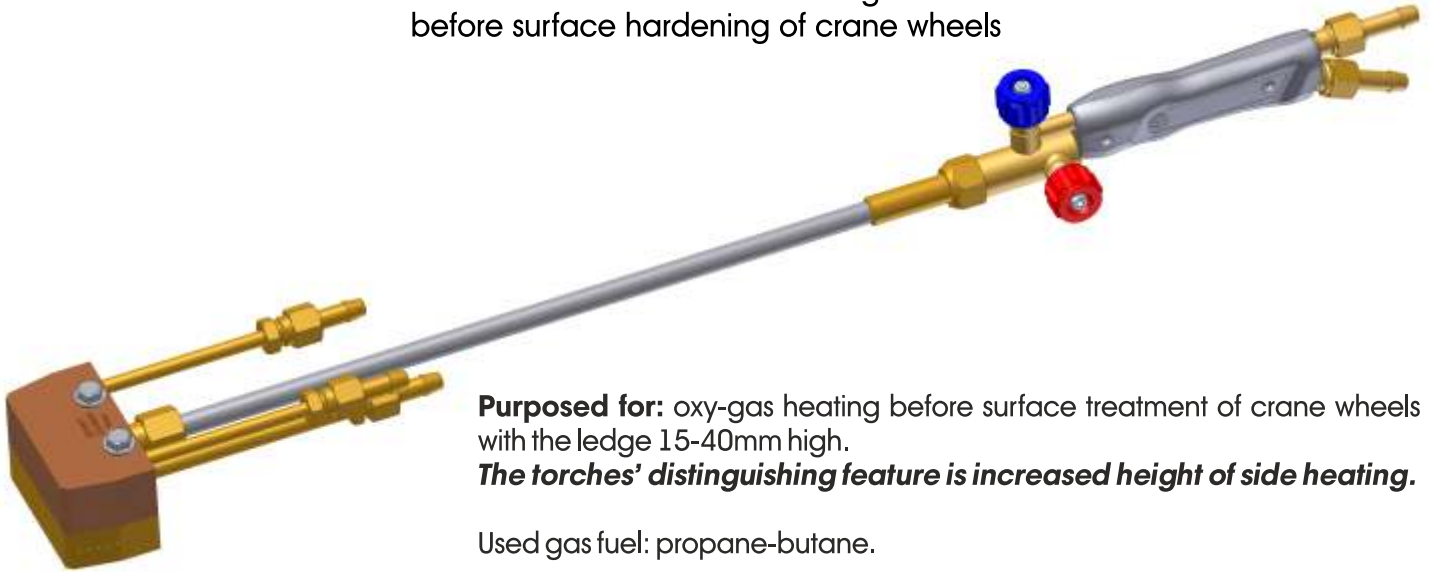
TECHNICAL SPECIFICATION

Working width, mm		100
Pressure, kgf/cm ²	oxygen	0,4 - 0,8
	natural gas (methane)	0,4 - 0,8
	propane-butane	3,0 - 5,0
Consumption, m ³ /h	oxygen	2,8 - 4,0
	natural gas (methane)	4,8 - 7,0
	propane-butane	9,4 - 13,8
Hose inner diameter, mm		9
Overall dimensions		734x110x76
Torch weight no more than, kg		1,8



«DONMET» 203-09...15

linear torches for heating
before surface hardening of crane wheels



Purposed for: oxy-gas heating before surface treatment of crane wheels with the ledge 15-40mm high.

The torches' distinguishing feature is increased height of side heating.

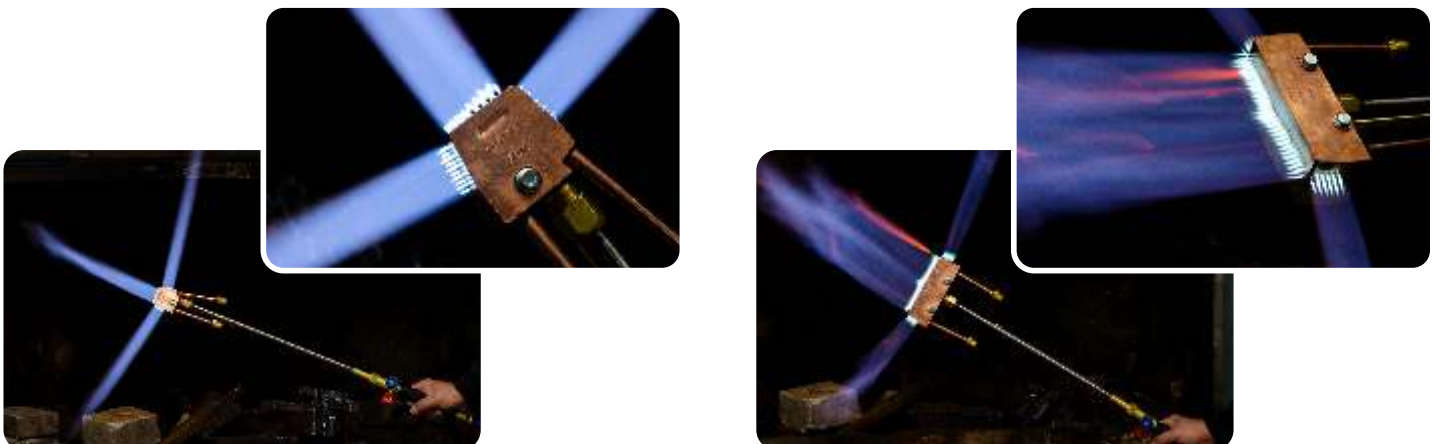
Used gas fuel: propane-butane.

TECHNICAL SPECIFICATION

Order No.		203.000.09	203.000.10	203.000.11
Working width, mm		90	130	150
Pressure, kgf/cm ²	propane-butane	5 – 6	5 – 6	5 – 7
	oxygen	0,4 – 0,6	0,4 – 0,6	0,4 – 0,7
Consumption, m ³ /h	propane-butane	7,2 – 9,6	10,0 – 13,4	10,0 – 15,0
	oxygen	1,8 – 2,4	2,5 – 3,4	2,8 – 3,8
Hose inner diameter, mm		9	9	9
Overall dimensions, mm		780x110x90	780x110x130	780x110x150
Torch weight, no more than, kg		3,0	3,7	4,2

TECHNICAL SPECIFICATION (continued)

Order No.		203.000.12	203.000.13	203.000.14	203.000.15
Working width, mm		100	70	60	50
Pressure, kgf/cm ²	propane-butane	5 – 6	5 – 6	5 – 6	5 – 6
	oxygen	0,4 – 0,6	0,4 – 0,6	0,4 – 0,6	0,4 – 0,6
Consumption, m ³ /h	propane-butane	7,8 – 10,4	6,0 – 8,0	5,5 – 7,4	4,8 – 6,5
	oxygen	1,9 – 2,6	1,5 – 2,0	1,4 – 1,8	1,2 – 1,6
Hose inner diameter, mm		9	9	9	9
Overall dimensions, mm		780x110x100	780x110x70	780x110x60	780x110x50
Torch weight, no more than, kg		3,3	2,8	2,6	2,4



«DONMET» 205

multijet torch for thermal power plants



Purposed for: burning of tap-holes in the thermal power plant ash pits as well for heating and preheating of various manufacturing parts.

Design features: external gas mixing; single-block head; gas consumption adjustment via the torch valves with triple thread for quick opening and closing of gas supply.

Used gas fuel: natural gas (methane).

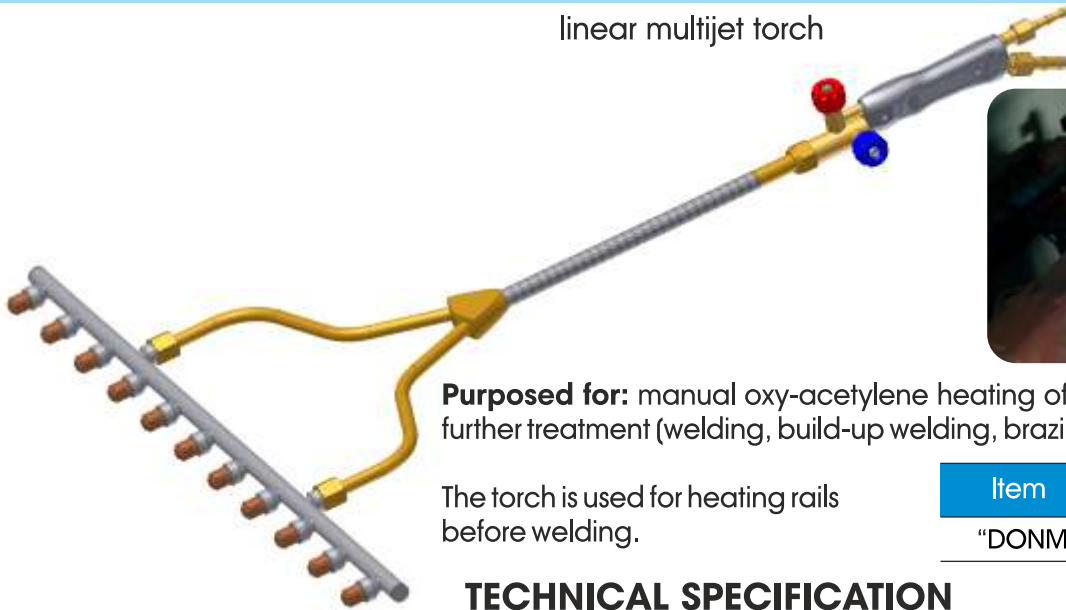
Item	Order No.
“DONMET” 205	205.000.00

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	oxygen	5 - 7
	natural gas (methane)	1,0 - 1,5
Consumption, m ³ /h	oxygen (central)	14,8 - 17,4
	oxygen (circumferential)	50,5 - 63
	natural gas (methane)	31 - 39
Rate of heat flow, KW		298 - 374
Flame temperature, °C		1850 - 1900
Torch length no more than, mm		3000
Hose inner diameter, mm		9
Torch weight no more than, kg		6,4



«DONMET» 219A linear multijet torch



Purposed for: manual oxy-acetylene heating of parts before further treatment (welding, build-up welding, brazing, etc).

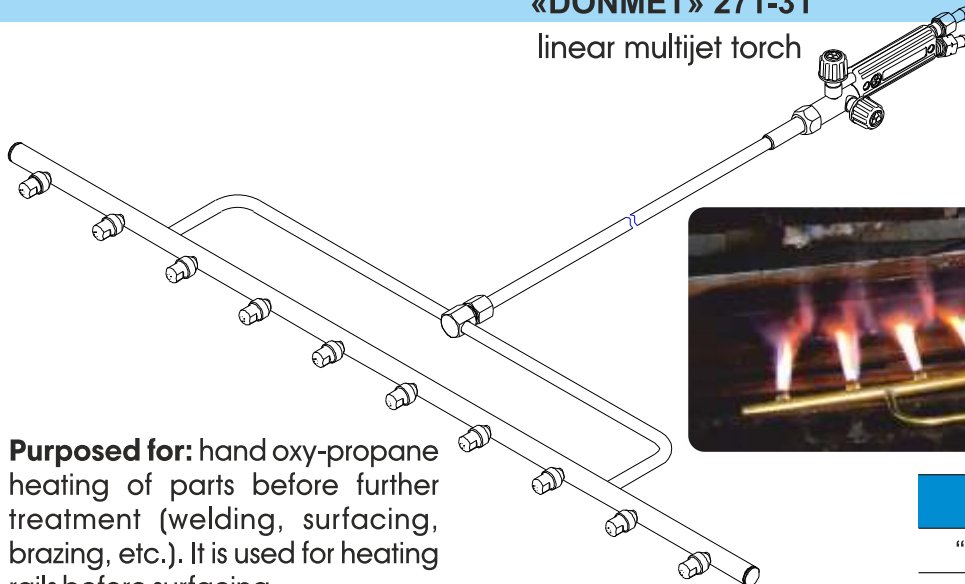
The torch is used for heating rails before welding.

Item	Order No.
“DONMET” 219A	219.000.00

TECHNICAL SPECIFICATION

Length of the area to be heated, mm	700	
Pressure, kgf/cm ²	oxygen	3,0 – 5,0
	acetylene	0,1 – 1,0
Consumption, m ³ /h	oxygen	1,8 – 2,5
	acetylene	1,5 – 2,4
Hose inner diameter, mm	6/8	
Torch length no more than, mm	640	
Torch weight no more than, kg	1,8	

«DONMET» 271-31 linear multijet torch



Purposed for: hand oxy-propane heating of parts before further treatment (welding, surfacing, brazing, etc.). It is used for heating rails before surfacing.

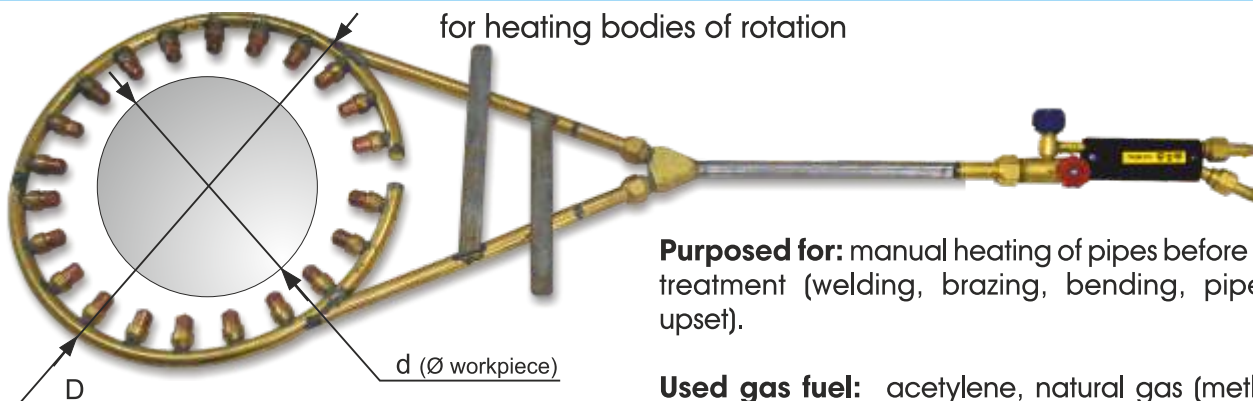
Item	Order No.
“DONMET” 271	271.000.32

TECHNICAL SPECIFICATION

Length of the area to be heated, mm	1000	
Pressure, kgf/cm ²	oxygen	4,0...6,0
	propane-butane	0,5...1,0
Consumption, m ³ /h	oxygen	13,0...16,8
	propane-butane	3,7...4,8
Hose inner diameter, mm	9	
Torch length no more than, mm	1260	
Torch weight no more than, kg	2,6	

«DONMET» 271

for heating bodies of rotation



Purposed for: manual heating of pipes before further treatment (welding, brazing, bending, pipe end upset).

Used gas fuel: acetylene, natural gas (methane), propane-butane.

Item	Length, L mm	Diameter, D mm	Pipe diameter, d mm	Order No.
"DONMET" 271 A	1055	300	80 - 100	271.000.00
"DONMET" 271 A	1185	380	180 - 200	271.000.01
"DONMET" 271 A	1340	470	280 - 300	271.000.02
"DONMET" 271 M	1055	300	80 - 100	271.000.03
"DONMET" 271 M	950	200	30 - 50	271.000.04
"DONMET" 271 M	1055	310	90 - 110	271.000.07
"DONMET" 271 M	1500	570	380 - 400	271.000.08
"DONMET" 271 P	1200	380	180 - 200	271.000.09
"DONMET" 271 P	950	200	30 - 50	271.000.11
"DONMET" 271 P	1200	400	200 - 220	271.000.12
"DONMET" 271 M	1200	380	180 - 200	271.000.14
"DONMET" 271 P	1000	300	80 - 90	271.000.20
"DONMET" 271 P	1100	320	100 - 110	271.000.21
"DONMET" 271 P	1200	350	140 - 156	271.000.22
"DONMET" 271 P	1300	400	200 - 220	271.000.23
"DONMET" 271 P	1300	520	310 - 325	271.000.24
"DONMET" 271 P	1400	620	410 - 426	271.000.25
"DONMET" 271 P	1600	710	510 - 530	271.000.26
"DONMET" 271 P	1400	500	250 - 273	271.000.27
"DONMET" 271 P	1850	900	700 - 720	271.000.28
"DONMET" 271 P	1600	800	610 - 630	271.000.29



TECHNICAL SPECIFICATION

Diameter of the pipe to be heated, d mm		80-100	180-200	280-300	80-100	30-50
Pressure, kgf/cm ²	oxygen	3,0-5,0	3,0-5,0	3,0-5,0	5,0	2,5
	acetylene	0,7-1,0	0,7-1,0	0,7-1,0	-	-
	natural gas (methane)	-	-	-	0,6	0,2
Consumption, m ³ /h	oxygen	3,5-4,6	3,5-4,6	3,5-4,6	8,63	5,9
	acetylene	3,0-4,8	3,0-4,8	3,0-4,8	-	-
	natural gas (methane)	-	-	-	5,1	2,6
Hose inner diameter, mm		9				
Torch length no more than, mm		1055	1185	1340	1500	950
Torch weight no more than, kg		3,5	3,8	4,0	3,5	3,0

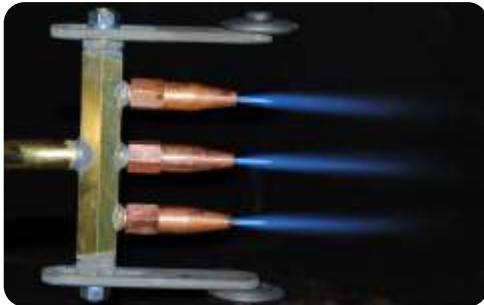
«DONMET» 276
for heating flat surfaces



Purposed for: hand heating of flat surfaces of non-ferrous metals, grey iron, carbon and alloy steel before further treatment.

Torch production for a different metal breadth is performed as per customer's order.

Used gas fuel:
acetylene,
propane-butane,
natural gas (methane).



Item	Breadth, B mm	Number of nozzles	Order No.
“DONMET” 276 A	100	2	276.000.00
“DONMET” 276 A	130	3	276.000.01
“DONMET” 276 A	160	4	276.000.02
“DONMET” 276 M	160	4	276.000.04
“DONMET” 276 P, M	300	10	276.000.05
“DONMET” 276 P	130	3	276.000.07
“DONMET” 276 P	160	4	276.000.12
“DONMET” 276 P	100	2	276.000.14
“DONMET” 276 P, M	160	6	276.000.15

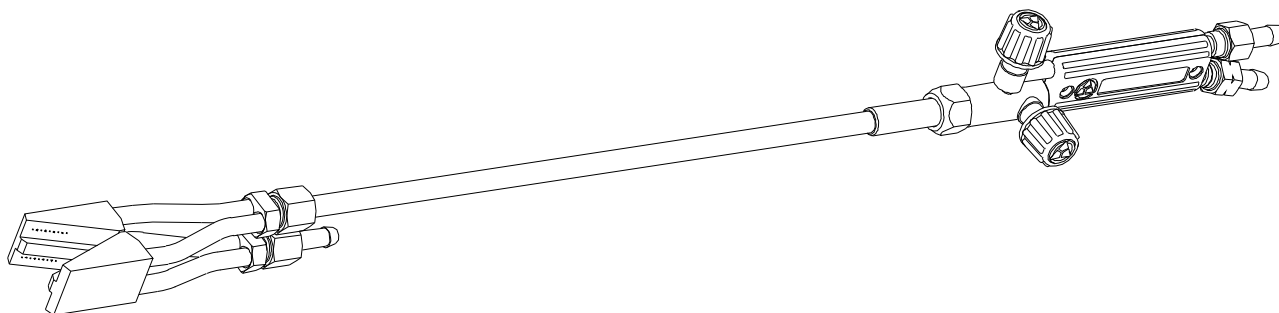
TECHNICAL SPECIFICATION

Breadth of the metal to be heated, B mm		100	130	160	300
Pressure, kgf/cm ²	oxygen	2,0 - 4,0			4,0-6,0
	acetylene	0,2 - 1,2			
	propane-butane				0,02 - 1,0
	methane	0,03-1,5			
Consumption, m ³ /h	oxygen	2,6 - 4,12			2,3 - 3,0
	acetylene	2,34 - 3,7			
	propane-butane				0,5 - 0,7
	methane	3,0 - 3,1			
Hose inner diameter, mm		9			
Torch length no more than, mm		1125			1000
Torch weight no more than, kg		1,3	1,5	1,7	3,1



"DONMET" 288

for heating of cog-wheels and racks subject to surface hardening



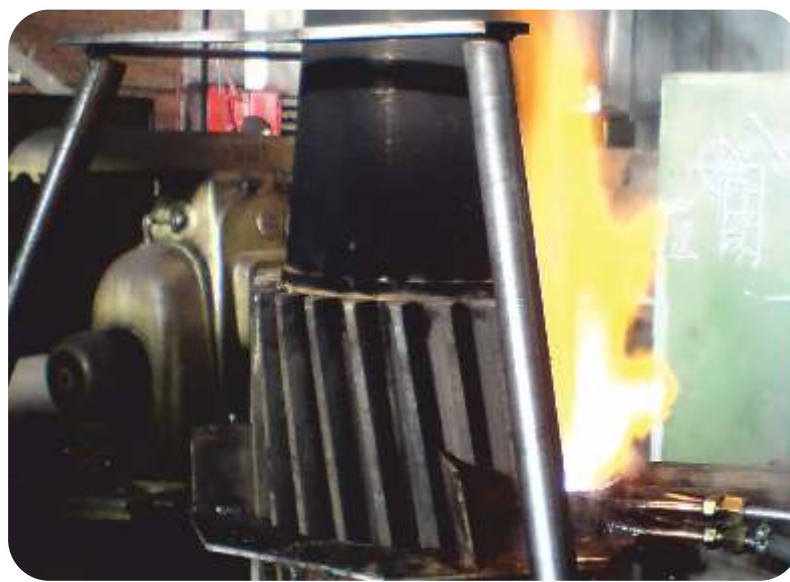
Purposed for: oxy-acetylene heating for surface hardening of cog-wheels and racks with a 12mm pitch module, the coolant liquid (water or emulsion) being fed to the heating area.

Item	Pitch, mm	Order No.
"DONMET" 288	12	288.000.01
"DONMET" 288	14	288.000.02
"DONMET" 288	16	288.000.03
"DONMET" 288	18	288.000.04

Item	Pitch, mm	Order No.
"DONMET" 288	20	288.000.05
"DONMET" 288	22	288.000.06
"DONMET" 288	25	288.000.07

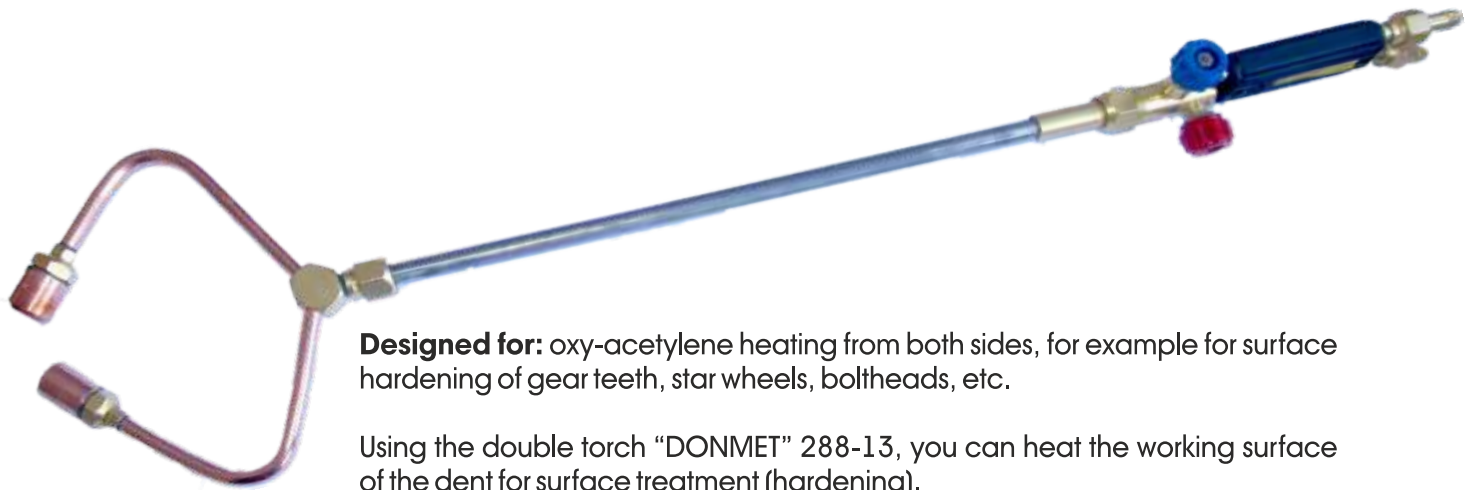
TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	oxygen	3 - 5
	acetylene	0,7 - 1,2
Consumption no more than, m ³ /h	oxygen	3,2 - 3,6
	acetylene	2,7 - 3,2
Hose inner diameter, mm		9
Overall dimensions, mm		840x90x70
Torch weight, kg		1,5
Pitch module, mm		12/14/16/18/20/22/25



"DONMET" 288-13 (double)

for heating of cog-wheels and racks subject to surface hardening



Designed for: oxy-acetylene heating from both sides, for example for surface hardening of gear teeth, star wheels, boltheads, etc.

Using the double torch "DONMET" 288-13, you can heat the working surface of the dent for surface treatment (hardening).

Item	Order No.
"DONMET" 288	288.000.13

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	propane-butane	0,4 - 0,8
	natural gas (methane)	0,4 - 0,8
	oxygen	3,0 - 5,0
Consumption no more than, m ³ /h	propane-butane	1,4 - 2,0
	natural gas (methane)	2,4 - 3,5
	oxygen	4,7 - 6,9
Hose inner diameter, mm		9
Overall dimensions, mm		879x214x76
Torch weight, kg		1,2



«DONMET» 292

for melting metal charge with the energy of arc heating



Oxy-gas torch “DONMET” 292 is used at the initial stage of melting metal charge with the energy of arc heating that is being fed at the maximum transformer capacity. Upon reaching the average charge temperature 900-1100°C, the torch is turned off, thus begins the process of purging the molten pool with the carbonaceous powder injected oxygen that is kept up until all charge has been melted.

Item	Order No.
“DONMET” 292	292.000.00

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	oxygen	5 - 10
	natural gas (methane)	0,7 - 1,5
	water	2 - 8
Consumption, m ³ /h	oxygen	2337 - 4285
	natural gas (methane)	617 - 907
Rate of heat flow when operating on natural gas (methane), MW		6 - 9
Flame temperature when operating on natural gas (methane), °C		1850 - 1900
Torch length no more than, mm		1100
Torch weight no more than, kg		70



«DONMET» 295
torch for stone flaming



Purposed for: treatment of structural stone such as granite, sandstone, etc.

Design features: adjustable distance between the nozzle and the item.

Used gas fuel: propane-butane.

Item	Order No.
“DONMET” 295 (100 mm)	295.000.01
“DONMET” 295 (150 mm)	295.000.06

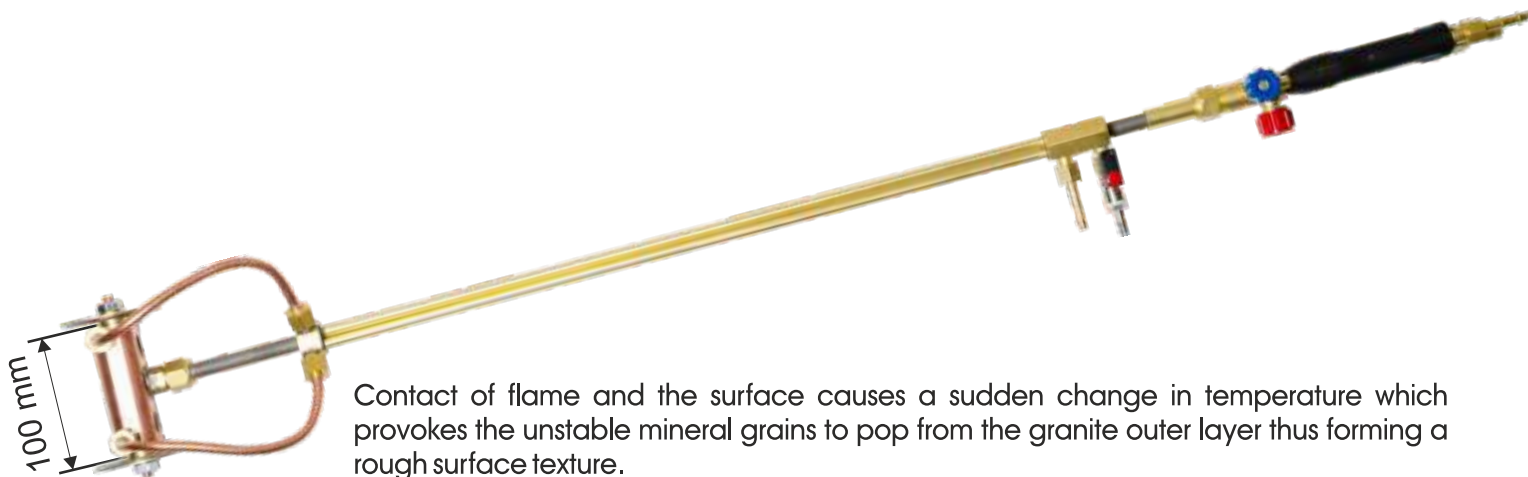
TECHNICAL SPECIFICATION

Order No.		295.000.01	295.000.06
Pressure, kgf/cm ²	propane-butane	0,6 - 0,8	
	oxygen	7,0 - 8,0	
	water, from	2,0	
Consumption, m ³ /h	propane-butane	2,5 - 2,8	
	oxygen	10,0 - 11,3	
Heating width, mm (L)		100	150
Hose inner diameter		9/9	6/8
Torch weight, no more than, kg		1,7	2,2
Torch length, no more than, mm		800	1195



«DONMET» 295-03

water-cooled torch for stone flaming



Contact of flame and the surface causes a sudden change in temperature which provokes the unstable mineral grains to pop from the granite outer layer thus forming a rough surface texture.

Advantages:

1. The torch body is made of chromium bronze and has a loop of water cooling, which excludes the possibility of overheating and as a result considerably increases the torch service life.
2. The torch flame ensures the treated stone surface continuity. The flame temperature reaches 2200°C.

Item	Order No.
"DONMET" 295-03	295.000.03

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	propone-butane	0,4 - 0,6
	oxygen	4,0 - 5,0
	water, from	2,0
Consumption, m ³ /h	propone-butane	1,2 - 1,5
	oxygen	7,0 - 8,0
Hose inner diameter, mm		9
Torch weight no more than, kg		2,5
Torch length no more than, mm		1210



«DONMET» 295-07
water-cooled torch
for an automatic line of stone flaming



Contact of flame and the surface causes a sudden change in temperature which provokes the unstable mineral grains to pop from the granite outer layer thus forming a rough surface texture.

Purposed for: treatment of structural stone such as granite, sandstone, etc. in an automatic line.

Design features: water-cooled.

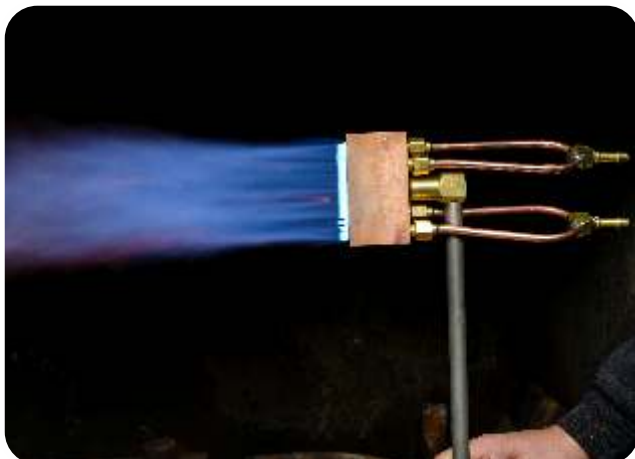
Head width: 100mm.

Used gas fuel: propane-butane.

Item	Order No.
“DONMET” 295-07	295.000.07

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	propane-butane	0,4 - 1,0
	oxygen	4,0 - 5,0
	water, from	2,0
Consumption, m ³ /h	propane-butane	1,6 - 2,0
	oxygen	9,0 - 10,6
Hose inner diameter, mm		9
Torch weight no more than, kg		3,0
Torch length no more than, mm		660



AIR-GAS TORCHES



Unique special-purpose torches have been widely used in a variety of industries (from food processing to metallurgy) at enterprises across Ukraine and Russia.

The equipment has proved to be safe and reliable.

The torches are used for different kinds of flame treatment: heating, drying, burning, pre-heating, etc.

«DONMET» 201
low-pressure ignition torch



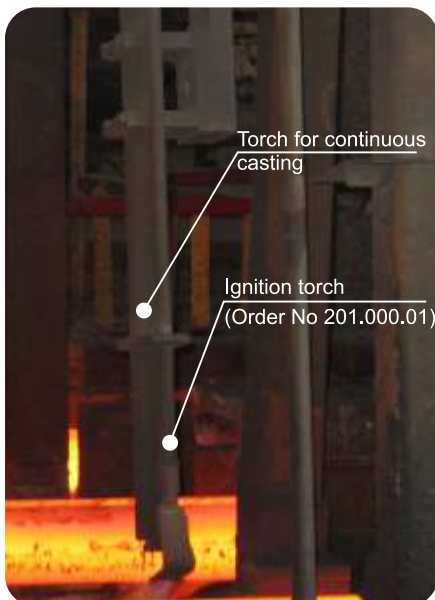
Purposed for: ignition of gas at the main torches in the fire-chambers of boilers, furnaces and other plants; ignition of preheating flame at the machine cutting torches in continuous casting plants.

Used gas fuel: natural gas (methane).

Item	Order No.
“DONMET” 201 (a)	201.000.00
“DONMET” 201 (b)	201.000.01

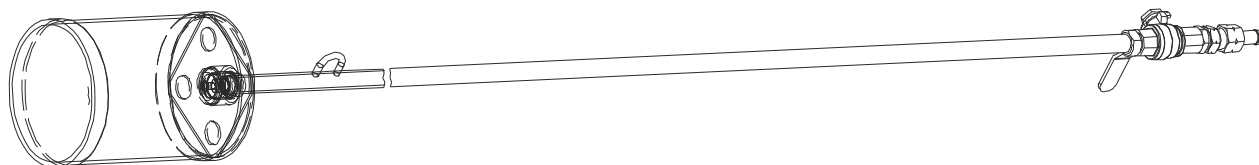
TECHNICAL SPECIFICATION

Order No.	201.000.00	201.000.01
Natural gas (methane) pressure, kgf/cm ²	0,3... 0,6	0,3... 1,0
Natural gas (methane) consumption, m ³ /h	0,45 ... 0,7	
Heat output (rated), KW	4,3 - 6,7	
Overall dimensions (LxWxH), mm	858x36x51	988x50x60
Inlet connection inner diameter	9	9
Torch weight no more than, kg	1,45	1,8



«DONMET» 201-02

air-gas low-pressure torch



TECHNICAL SPECIFICATION

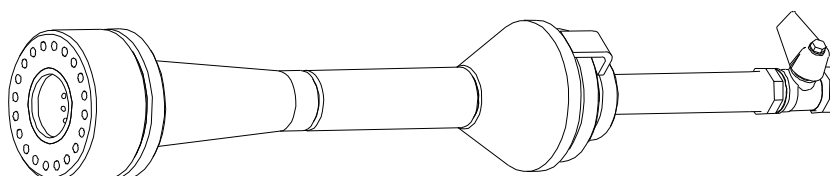
Data	Propane-butane (P)	Methane (M)
Gas fuel pressure, kgf/cm ²	0,7 - 1,5	0,7 - 1,5
Gas fuel consumption	26,2 - 42,4 kg/h	20 - 25 m ³ /h
Rate of heat flow, KW	323 - 523	192 - 240
Hose inner diameter, mm	9	
Torch weight no more than, kg	2,5	
Torch length no more than, mm	1800	

Purposed for: heating of ferrous and non-ferrous metals and non-metallic materials to the temperature point of 300°C as well as for the flowing of bituminous rolled material during waterproofing of various structures. The torch is used for igniting gas in the fire-chambers of boilers, furnaces and other power installations. The torch can be used for drying concrete panels and brickwork.

Item	Order No.
“DONMET” 201	201.000.02

«DONMET» 201-51

air-gas low-pressure torch



TECHNICAL SPECIFICATION

Gas fuel	Methane (M)
Gas fuel pressure, kgf/cm ²	0,8
Gas fuel consumption, m ³ /h	16,8
Heat output (nominal), KW	161
Inlet connection inner diameter	G3/4-B
Torch weight no more than, kg	5,5
Overall dimensions (LxWxH), mm	630x100x100



Purposed for: heating of products made of ferrous and non-ferrous metals, non-metallic materials. It is also used for heating when drying concrete panels and brickwork, fettling of metallurgical ladles.

Item	Order No.
“DONMET” 201	201.000.51

«DONMET» 212
linear multijet torch



Purposed for: heating of ferrous and non-ferrous metals for welding and surfacing; for heating parts during heavy-shrink fitting and press-fit disconnection.

Distinguishing features and advantages:

- the torch operates on an air-gas mixture with the use of natural gas (methane) or propane-butane as a gas fuel;
- uniform heating of an area up to 1100mm long;
- adjustable heating length from 800 to 1100 mm.

Item	Order No.
“DONMET” 212	212.000.00

TECHNICAL SPECIFICATION

Flame jet length L, mm		150 - 300
Pressure, kgf/cm ² (mm H ₂ O)	compressed air	4-6
	natural gas (methane)	0,03...0,3 (300 ... 3000)
	propane-butane	0,3...0,5
Consumption, m ³ /h	compressed air	46...70,4
	natural gas (methane)	9,8...12,6
	propane-butane	1,71...2,62 (3,42...5,24)
Rate of heat flow, KW	natural gas (methane)	94..120,7
	propane-butane	42,2...64,6
Flame temperature, °C		1870 ⁰
Torch length no more than, mm		1110
Torch weight no more than, kg		5,9



«DONMET» 212-01
circumferential multijet torch



Purposed for: heating products made of ferrous and non-ferrous metals as well as of non-metallic materials, for preliminary heating of metals for surfacing and outward welding of cylinder-shaped parts (like bushes).

The torch is also used for heating parts during heavy-shrink fitting and press-fit disconnection.

Item	Order No.
“DONMET” 212	212.000.01

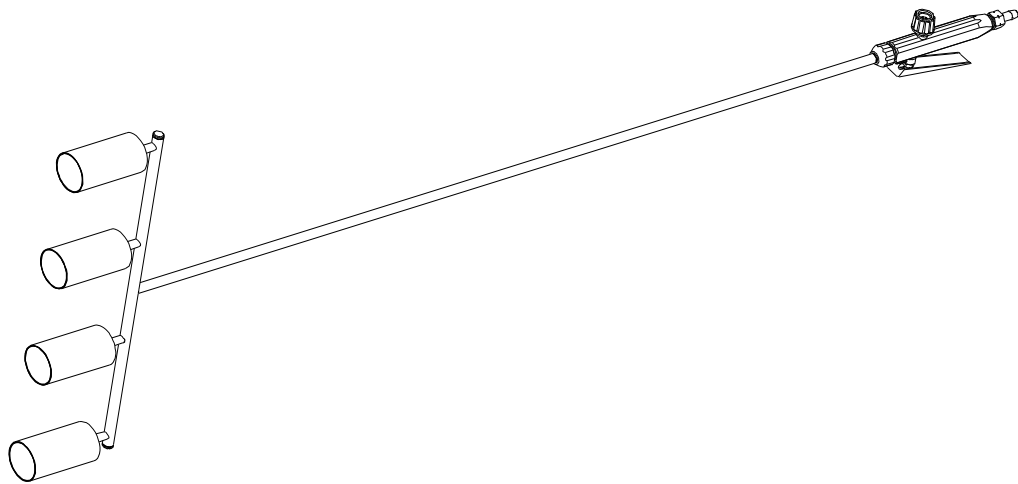
TECHNICAL SPECIFICATION

Single flame jet length no less than, mm	150 - 300	
Pressure, kgf/cm ² (mm H ₂ O)	compressed air	4...6
	natural gas (methane)	0,03...0,8 (300 ... 8000)
	propane-butane	0,5...1,0
Consumption, m ³ /h	compressed air	92...141
	natural gas (methane)	19,6...25,2
	propane-butane	3,42...5,24 (6,84...10,5)
Rate of heat flow, KW	natural gas (methane)	188...241
	propane-butane	84,4...129,2
Flame temperature, °C	1870 ⁰	
Heated part diameter, mm	400...700	
Torch weight no more than, kg	19	



«DONMET» 214

torch with compressed air forced supply



Purposed for: heating of ferrous and non-ferrous metals and non-metallic materials to the temperature point of 300 °C as well as for the flowing of bituminous rolled material during waterproofing of various structures. It is also used for drying concrete panels and brickwork.

Item	Order No.
“DONMET” 214	214.000.00

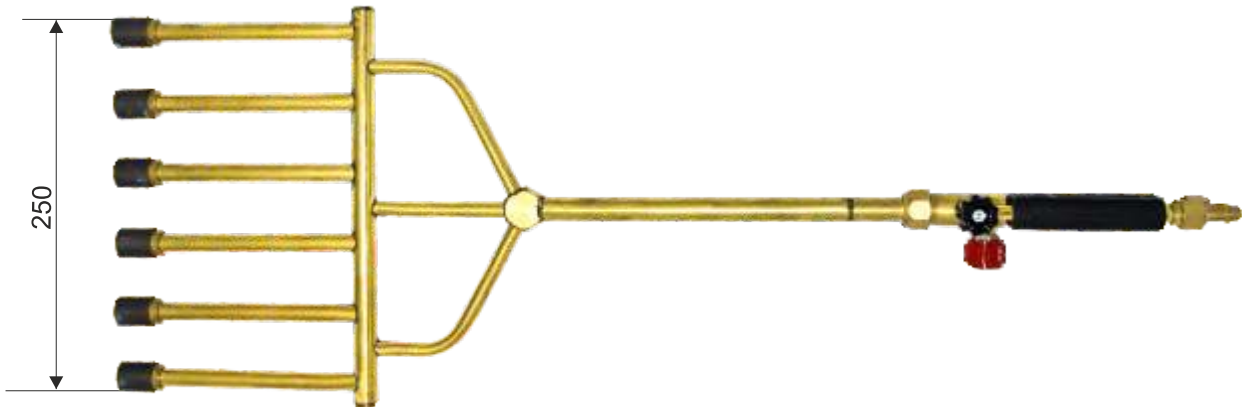
TECHNICAL SPECIFICATION

Propane-butane consumption, kg/h (m ³ /h)	10,6 - 14,1 (5,4 - 7,2)
Propane-butane pressure (during withdrawal), kgf/cm ²	1,0 - 2,0
Rate of heat flow, KW (4 nozzles No.3 Ø52)	168 - 271
Torch weight no more than, kg	1,7



«DONMET» 265

torch with compressed air forced supply


Purposed for:

- heating of products made of ferrous and non-ferrous metals and non-metallic materials;
- heating of thin-plate metal for leveling and bending;
- heating of metals for surfacing and welding, elimination of welding deformations and strains.

Item	Order No.
“DONMET” 265	265.000.00

Distinguishing features and advantages:

- the torch operates on an air-gas mixture with the use of natural gas (methane) or propane-butane as a gas fuel. The gas fuel is injected with compressed air in the torch;
- the torch can work off the low-pressure gas network;
- heating width 300mm.


TECHNICAL SPECIFICATION

Number of nozzles in the tip		6
Heating width no more than, mm		300
Pressure, kgf/cm ²	compressed air	4
	natural gas (methane)	0,025
	propane-butane	0,1
Consumption, m ³ /h	compressed air	21,5/16,7
	natural gas (methane)	2
	propane-butane	0,7
Rate of heat flow, KW		19/17
Flame temperature, °C		1870
Hose inner diameter, mm		9
Torch weight no more than, kg		1,45

«DONMET» 216

heavy-duty torch with compressed air forced supply



Purposed for: pre-heating of rails before welding in an automatic plant for arc welding.

The torch is supplied with 4 nozzles “Donmet” 280.

Heating width: 700mm.

Used gas fuel: propane-butane.

Item	Order No.
“DONMET” 216	216.000.00

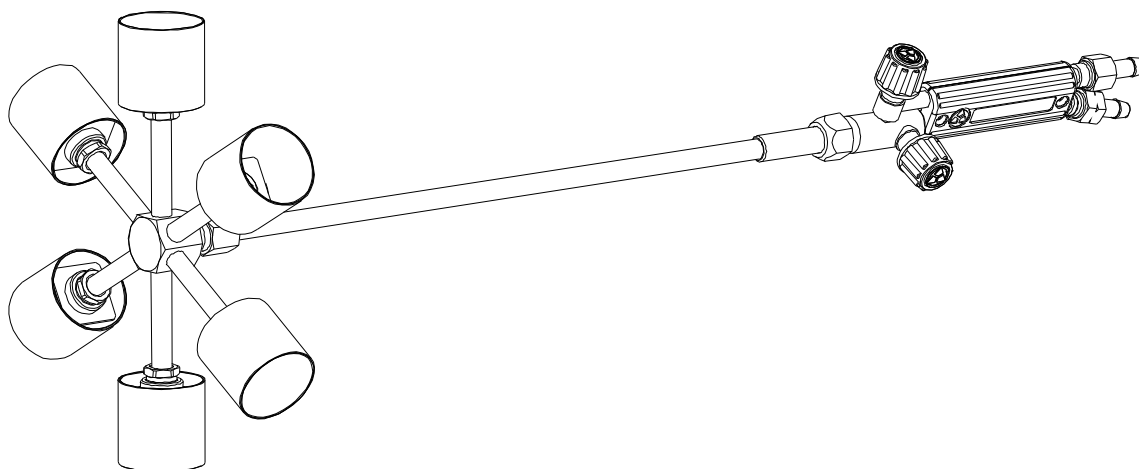
TECHNICAL SPECIFICATION

Flame jet length no less than, mm		300–800
Dynamic pressure*, kgf/cm ²	compressed air	6...8
	propane-butane	1...1,5
Consumption, m ³ /h	compressed air	39,2±3,5
	propane-butane	5,6±0,5 (11,2±1)
Rate of heat flow, KW		138
Flame temperature, °C		1870°
Hose inner diameter, mm		9/9
Torch weight no more than, kg		5,6
Torch length, no more than, mm		1500

*Pressure of energy carriers at the torch inlet when the torch is used in burning mode. For testing the torch was connected to a manifold of 4 cylinders of propane-butane.

«DONMET» 265-04

torch with compressed air forced supply



Purposed for: heating of products made of ferrous and non-ferrous metals as well as non-metallic materials, preliminary inward heating of metals for surfacing and welding of parts (like bushes). The torch is also used for heating parts during heavy-shrink fitting and press-fit disconnection.

Item	Order No.
“DONMET” 265	265.000.04

TECHNICAL SPECIFICATION

Flame jet length no less than, mm		150...300
Flame temperature, °C		1870
Pressure, kgf/cm ² (mm H ₂ O)	compressed air	4...6
	natural gas (methane)	0,03...0,3 (300...3000)
	propane-butane	0,3...0,5
Consumption, m ³ /h (kg/h)	compressed air	46...70,4
	natural gas (methane)	9,8...12,6
	propane-butane	1,71...2,62 (3,42...5,24)
Rate of heat flow, KW	natural gas (methane)	94...120,7
	propane-butane	42,2...64,6
The heated bush diameter, mm		500...800
Torch weight no more than, kg		2,2



«DONMET» 275

high-power torch with compressed air forced supply


Purposed for:

- preliminary heating of metals for surfacing and welding;
- drying of casting molds.

Design features: the single-block mixing device embedded in the angle head.

The torch operates on an air-gas mixture with the use of natural gas (methane) as a gas fuel. The gas fuel is injected with forced fed compressed air.

The torch is installed fixedly.

Item	Order No.
“DONMET” 275	275.000.00

The torch is successfully used at CJSC “Donetsksteel Iron and Steel Works” at the manufacture and repair department for heating parts for the press-fit connection and disconnection and at PJSC “Ilyich Iron and Steel Works” at department No.4 for repair operations of the teeming ladle cars' wheelsets.

TECHNICAL SPECIFICATION

Hot spot diameter no more than, mm		200
Nominal pressure, kgf/cm ²	compressed air	3 - 8
	natural gas (methane)	0,025 - 2,0
Nominal consumption, m ³ /h	compressed air	8,6 - 36,9
	natural gas (methane)	1,88 - 6,58
Rate of heat flow, KW		18 - 63
Flame temperature, °C		1870
Hose inner diameter, mm		12
Torch weight no more than, kg		4,6
Torch length no more than, mm		1380

«DONMET» 280

light-weight high-power torch with compressed air forced supply



Purposed for:

- heating of products made of ferrous and non-ferrous metals, non-metallic materials;
- heating of metals for surfacing and welding, elimination of welding deformations and strains;
- flowing of bituminous rolled material during waterproofing of various structures;
- drying of concrete panels, brickwork and casting molds;
- flame treatment of farm animals' carcasses (pigs, cattle, etc.)

Distinguishing features and advantages:

- operates on an air-gas mixture with the use of natural gas (methane) or propane-butane as a gas fuel. The gas fuel is injected with compressed air in the torch;
- works off the low-pressure gas network (0,035 kgf/cm²);
- ensures high rate of heat flow (up to 50 KW).

Item	Length L, mm	Order No.
“DONMET” 280 “VEPR”	785	280.000.00
“DONMET” 280 “VEPR”	1185	280.000.01

TECHNICAL SPECIFICATION

Flame jet length no less than, mm		300 - 800
Pressure, kgf/cm ² (mm H ₂ O)	compressed air	3-5
	natural gas (methane)	0,01...0,1 (100 ... 1000)
	propane-butane	0,1...0,3
Consumption no more than, m ³ /h	compressed air	8,4...12
	natural gas (methane)	4,2...6
	propane-butane	1,2...1,7 (2,4...3,4)
Rate of heat flow, KW	natural gas (methane)	40..57,5
	propane-butane	29,6...42,0
Flame temperature, °C		1870°
Torch length no more than, mm		785 / 1185
Torch weight no more than, mm		1,16 / 1,4



«DONMET» 281

air-kerosene torch with compressed air forced supply


Purposed for:

- heating of products made of ferrous and non-ferrous metals, non-metallic materials;
- preliminary heating of metals for surfacing and welding;
- flowing of bituminous rolled material during waterproofing of various structures;
- drying of concrete panels and brickwork;
- flame treatment of pigs' and cows' carcasses.

Distinguishing features and advantages:

- operates on an air-kerosene mixture with the use of kerosene (diesel oil) as a fuel;
- flame jet length – 300-800 mm.

Item	Order No.
“DONMET” 281	281.000.00

TECHNICAL SPECIFICATION

Flame jet length no less than, mm		300
Nominal pressure, kgf/cm ²	compressed air	3 - 5
	kerosene (diesel oil)	3 - 5
Nominal consumption	compressed air, m ³ /h	13,5
	kerosene (diesel oil), l/h	12 - 18
Rate of heat flow no less than, KW		50
Torch weight no more than, kg		2,0



«DONMET» 283

torch with compressed air forced supply



Purposed for:

- heating of products made of ferrous and non-ferrous metals;
- heating of thin-plate metal for leveling and bending;
- heating of bodies of rotation with the torch mounted to a lathe;
- heating of metals for surfacing and welding, elimination of welding deformations and strains;
- **surface activation of polyethylene and polypropylene products for screen printing.**

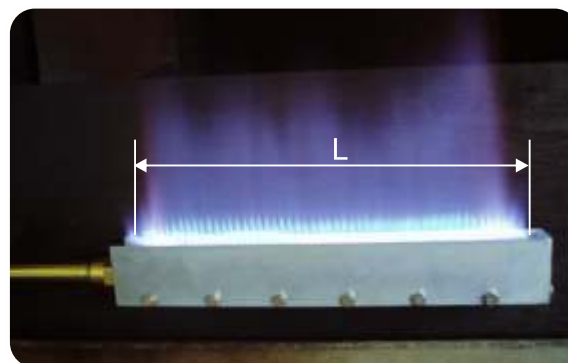
Distinguishing features and advantages:

- operates on an air-gas mixture with the use of natural gas (methane) as a gas fuel. The gas fuel is injected with compressed air in the torch;
- works off the low-pressure gas network (0,025 kgf/cm²);
- width of the active part 100 and 250 mm;
- uniform flame along the full length of the active part.

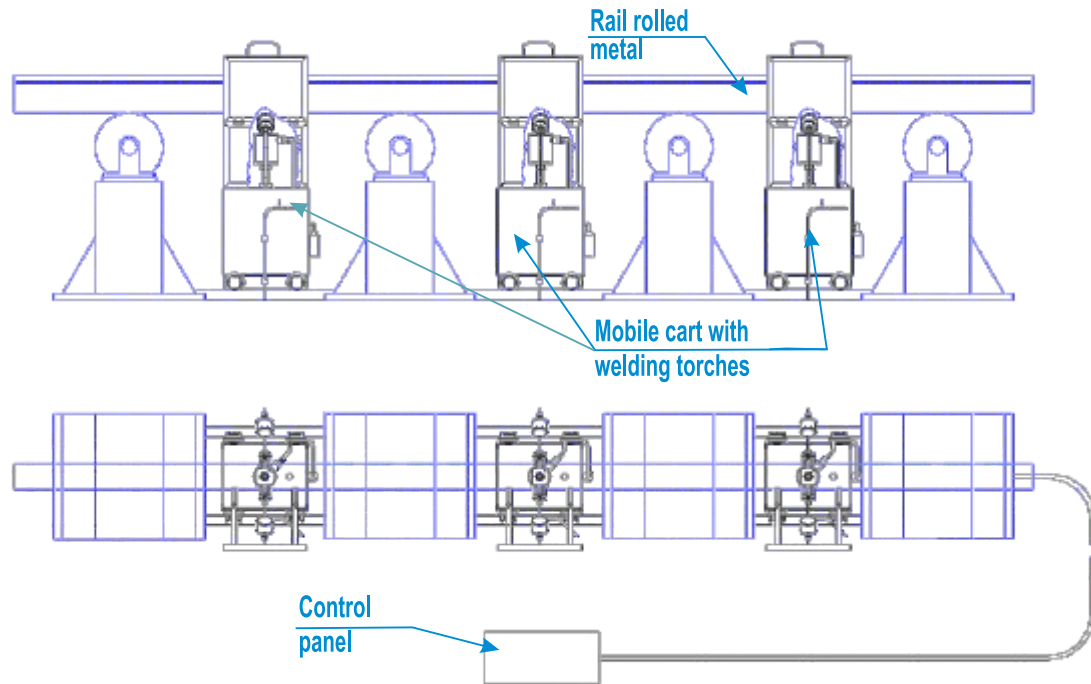
Item	Length L, mm	Order No.
“DONMET” 283	100	283.000.00
“DONMET” 283	250	283.000.01

TECHNICAL SPECIFICATION

Rate of heat flow no less than, KW		5, 7 / 17
Length of the active part L, mm		100 / 250
Pressure, kgf/cm ²	compressed air	3-5
	natural gas (methane)	0,025...0,1
Consumption no more than, m ³ /h	compressed air	7 / 17
	natural gas (methane)	1 / 1,8
Flame temperature, °C		1870 ⁰
Torch length no more than, mm		645 / 795
Torch weight no more than, kg		1,5 / 2,3



«DONMET» 833
for heating rail rolled metal



Station purposed for: heating of rail rolled metal before bending.
The station is successfully used at PJSC «Dnipropetrovsky Strilotchny Zavod» (PJSC «DnSZ»).

Item	Order No.
«DONMET» 833	833.000.00

Distinguishing features and advantages:

- Consumption for heating is 2,5 times less than with the use of electronic heating!!!
- Automatic torch ignition and extinguishing at set intervals.
- Heating of rail rolled metal P65 within 3 minutes:
 - o rail rolled metal head – from 190 to 200°C;
 - o rail rolled metal base – from 280 to 300°C.

TECHNICAL SPECIFICATION

Flame jet length no less than, mm		300
Pressure at flow, kgf/cm ²	compressed air	3,0...8,0
	propane-butane	0,5...1,0
Max. consumption for three carts, m ³ /h	compressed air	318,0
	propane-butane	9,0
Flame temperature, °C		1870
Station weight no more than, kg		300



TORCHES

FOR GLASS PROCESSING, LABORATORY, JEWELRY AND DENTOPROSTHETIC WORKS



Unique special-purpose torches have been widely used in such industries as metallurgy, chemical manufacturing, machine-building, construction, power industry, oil and gas industry, as well as food processing and medicine.

The equipment has proved to be safe and reliable.

«DONMET» 215

bulb-blowing torch LAMPWORK



Purposed for: heating, brazing and shaping of objects made of glass (glass tubes, etc.).

The torch is installed at a desk or a test bench.



Designation	Order No.
“DONMET” 215	215.000.00

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	propane-butane	0,1 - 0,5
	oxygen	0,02 - 1,0
Consumption, m ³ /h	propane-butane	0,05 - 0,07
	oxygen	0,005 - 0,1
Hose inner diameter, mm		6
Torch weight no more than, kg		0,55
Overall dimensions (LxWxH), mm		205x100x145



«DONMET» 258-02

bulb-blowing torch



Purposed for: heating, brazing and shaping of objects made of glass (glass tubes, etc.).

To install the torch at a desk or a test bench it is required to use a prop that allows to set the torch at the right angle to the table and to rotate it around its axle for the users' maximum convenience.

The torch is used for the production of sand-glass cases, areometers, alcohol gauges, inhalers and laboratory instruments made of glass.

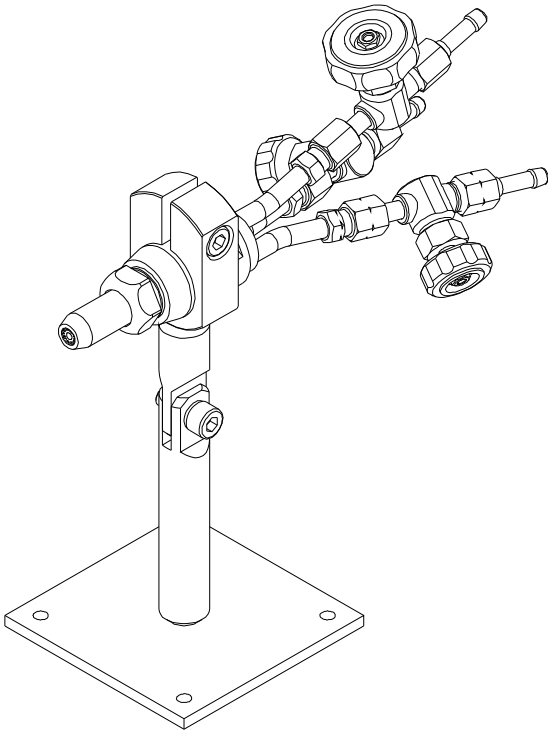
Designation	Order No.
«DONMET» 258-02	258.000.02

TECHNICAL SPECIFICATION

	propane-butane	oxygen	compressed air
Nominal pressure no more than, kgf/cm ²	0,03	1,0	2,0
Nominal consumption no more than, m ³ /h	0,32	1,48	0,35
Hose inner diameter, mm	6		
Torch weight no more than, kg	0,55		
Overall dimensions (LxWxH), mm	205x100x145		



«DONMET» 286 bulb-blowing torch



Purposed for: heating, brazing and shaping of objects made of glass (glass tubes, etc.).

To install the torch at a desk or a test bench it is required to use a prop that allows to set the torch at the right angle to the table and to rotate it around its axle for the users' maximum convenience.

The torch is used for the production of sand-glass cases, areometers, alcohol gauges, inhalers and laboratory instruments made of glass.

Designation	Order No.
“DONMET” 286	286.000.00

TECHNICAL SPECIFICATION

	propane-butane	oxygen	compressed air
Nominal pressure no more than, kgf/cm ²	0,03	1,0	2,0
Nominal consumption no more than, m ³ /h	0,2	0,8	0,3
Hose inner diameter, mm	6		
Torch weight no more than, kg	1,65		
Overall dimensions (LxWxH), mm	231x117x237		



«DONMET» 249

for brazing and bending of quartz tubes



Purposed for: brazing and bending of quartz tubes, crimping of electrodes in quartz tubes, heating of products before welding, surfacing or bending.



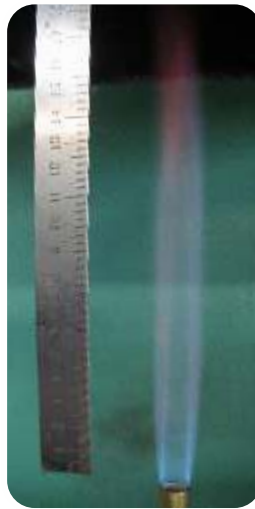
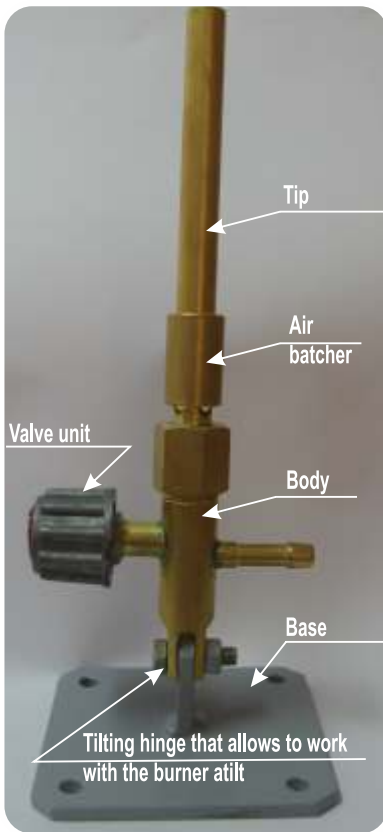
Designation	Order No.
«DONMET» 249	249.000.10

TECHNICAL SPECIFICATION

Pressure, kgf/cm ²	propane-butane	no less than 0,2
	natural gas (methane)	no less than 0,2
	oxygen	3,0...5,0
Consumption, m ³ /h	propane-butane	0,14 - 0,32
	natural gas (methane)	0,36 - 0,5
	oxygen	0,5 - 1,2
Flame temperature when operating on, °C	natural gas (methane)	1850 - 1900
	propane-butane	2100 - 2200
Torch length with the tip no more than, mm		610
Torch weight with the tip no more than, kg		0,78
Hose inner diameter, mm		9



«DONMET» 285
Bunsen universal burner



Replaceable mixing device
for operating
on natural gas (methane)

Designation	Order No.
«DONMET» 285	285.000.04

Purposed for: mixing gas fuel with air from the atmosphere and burning in the atmosphere with the formation of the shaped flame jet.

The burner is used in chemical and school laboratories, jewelry houses, microbiological, cytological and biotechnical laboratories, medical establishments, test engineering centres and dental laboratories, as well as everywhere that requires the use of open flame of little heat power.

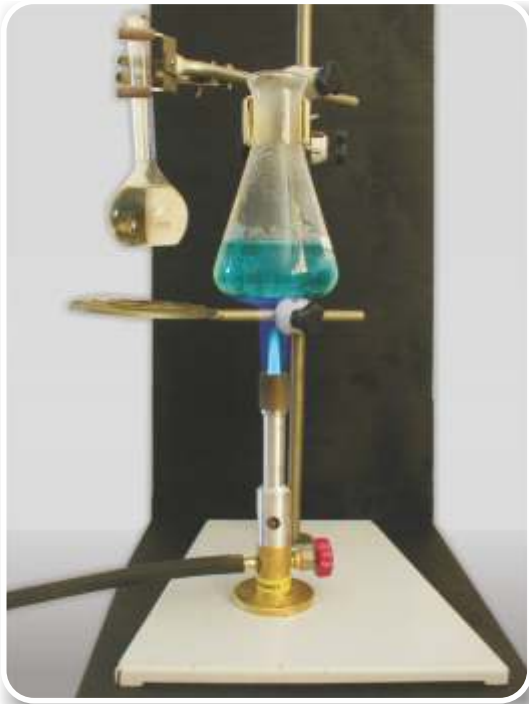
Used gas fuel: propane-butane, natural gas (methane).

TECHNICAL SPECIFICATION

Gas fuel	Gas fuel pressure, kgf/cm ²	Gas fuel consumption, l/h	Rate of heat flow, KW
Propane-butane	0,1-1,0	10-19	0,25-0,47
Natural gas (methane)	0,1-1,5	28-56	0,27-0,54
Overall dimensions 80x80x210 mm			
Burner weight 0,5 kg			
Hose inner diameter 6 mm			

«DONMET» 285

Bunsen universal burner



Replaceable mixing device
for operating
on natural gas (methane)

Designation	Order No.
“DONMET” 285	285.000.00

Purposed for: mixing gas fuel with air from the atmosphere and burning in the atmosphere with the formation of the shaped flame jet.

The burner is used for laboratory works under chemical, physical and other laboratory conditions as well as for brazing with soft and coarse solders with their melting temperature not exceeding 700°C, heating, melting and similar thermal processes.

Used gas fuel: propane-butane, natural gas (methane).

TECHNICAL SPECIFICATION

Gas fuel	Gas fuel pressure, kgf/cm ²	Gas fuel consumption, l/h	Rate of heat flow, KW
Propane-butane	0,025-0,05	12-22	0,3-0,55
Natural gas (methane)	0,025-0,05	24-64	0,23-0,6
Overall dimensions 167x185x60 mm			
Burner weight 0,425 kg			
Hose inner diameter 6 mm			

«DONMET» 297

ideal for jewellery and dentoprosthetic works



Tip GVP № 4

Flame core diameter – 10 mm
Flame core length – 80 mm



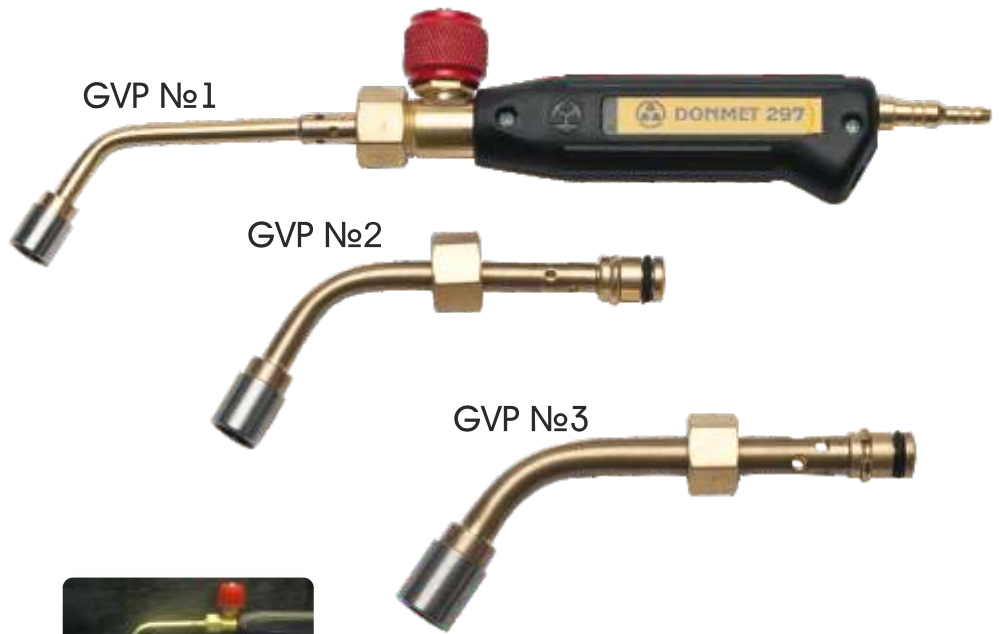
Tip GVP № 2

Flame core diameter – 5,5 mm
Flame core length – 55 mm



Tip GVP № 1

Flame core diameter – 4 mm
Flame core length – 22 mm



Designation	Order No.
“DONMET” 297	297.000.00

Purposed for:

- brazing during jewellery and dentoprosthetic works;
- brazing with soft and coarse solders with their melting temperature not exceeding 700°C, as well as for heating, melting and similar thermal processes.

TECHNICAL SPECIFICATION

		Propane-butane	Natural gas methane
Gas fuel pressure, kgf/cm ²	with the tip GVP №1	1,0 - 2,0	0,7 - 1,5
	with the tip GVP №2	1,0 - 2,0	0,7 - 1,5
	with the tip GVP №3	1,0 - 3,5	0,7 - 1,5
	with the tip GVP №4	1,0 - 2,0	0,7 - 2,0
Gas fuel consumption	with the tip GVP №1	0,016 – 0,024 kg/h	0,012 – 0,017 m ³ /h
	with the tip GVP №2	0,047 – 0,07 kg/h	0,04 – 0,05 m ³ /h
	with the tip GVP №3	0,047 – 0,07 kg/h	0,04 – 0,05 m ³ /h
	with the tip GVP №4	0,025 – 0,38 kg/h	0,2 – 0,27 m ³ /h
Rate of heat flow, KW	with the tip GVP №1	0,2 - 0,3	0,12 - 0,16
	with the tip GVP №2	0,56 - 0,9	0,36 - 0,5
	with the tip GVP №3	0,56 - 0,9	0,36 - 0,5
	with the tip GVP №4	3,0 - 4,7	1,9 - 2,6
Hose inner diameter, mm		6	
Torch length with the tip GVP №1 no more than, mm		260	
Torch weight with the tip GVP №1 no more than, kg		0,15	
Torch weight with the set of tips no more than, kg		0,31	

NETWORK FLASHBACK ARRESTERS GAS DISPENSING STATIONS GAS INFLATING AND RAREFYING MANIFOLDS



Special equipment for the cutter's workplace for safe connection of low- and high-power cutting torches.

Network flashback arresters are intended to protect gas-mains from the penetration of flame at enterprises where the gas is supplied to departments and workshops through a centralized network. The sufficient capacity of network flashback arresters allows to connect high-power cutting torches for performing metallurgy works.

Gas dispensing stations meet the requirements of all the current safety regulations for conducting gas-cutting operations. The stations serve to supply gases to all the equipment for cutting, welding and heat treatment of metals.

The manifolds are intended for delivering gases from cylinders into the supply network. The manifold basic features conform to the "Safety Rules for the Production and Consumption of Air Separation Products", "Rules for Occupational Safety and Health during Acetylene Production and Gas-Flame Treatment of Metals" subject to the consumer's due regard for the operation, handling and storage rules.

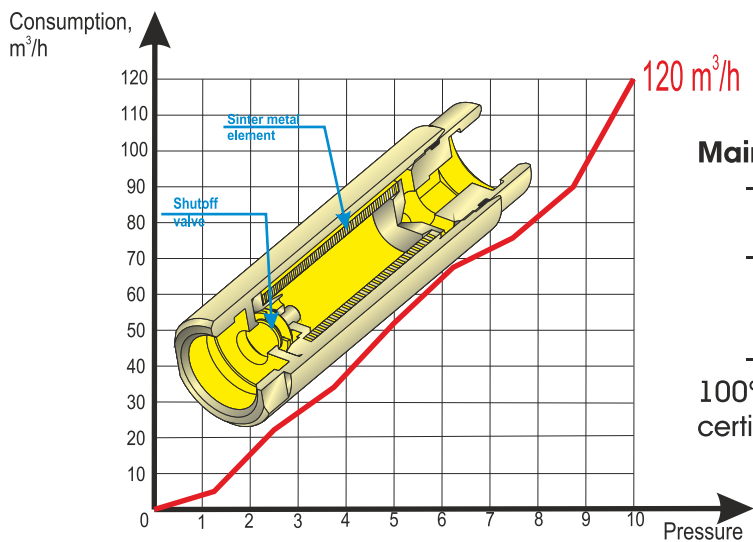
«DONMET» 955 network flashback arrester



Purposed for: protecting gas-mains from flashbacks as well as from penetration of oxygen and air from the demand side.

The flashback arrester is installed to the gas station at the spot of conducting gas-flame works or directly to a cutting torch of increased power.

Designation	Type	Order No.
“DONMET” 955 (a)	KOK	955.000.00
“DONMET” 955 (b)	KOG	955.000.01



Main advantages:

- blocks gas reverse flow at the pressure of 0,03 kgf/cm² and more;
 - the sinter metal filter (micropore size no more than 40 μm) prevents flame penetration to the hose and the cylinder;
 - withstands no less than 100 flashbacks in a row;
- 100% of all produced flashback arresters are tested in a certified laboratory.

TECHNICAL SPECIFICATION

Working medium	Maximum working pressure	Relative pressure limit Δ P%	Nominal capacity, m ³ /h	Connection unit thread	Maximum diameter and length	Weight, kg
Oxygen	16	15	120	G 3/4	35x118	1,0
Acetylene	1,5		20			
Propane	3,0		30			
Methane						

As per customer's order "Donmet" plant produces inflating and rarefying manifolds for all kinds of gases.

Inflating manifolds are used to fill cylinders from air-separating plants of varying productivity, high-pressure gas-supplying plants, gasifiers, high-pressure compressors.

Rarefying manifolds are purposed for supplying small quantities of industrial gases from the cylinders through pressure regulators. Oxygen manifolds can be used for delivering nitrogen or argon. Rarefying manifolds are used in laboratories for delivering industrial gases to the appliances.



Argon rarefying manifold



Nitrogen rarefying manifold



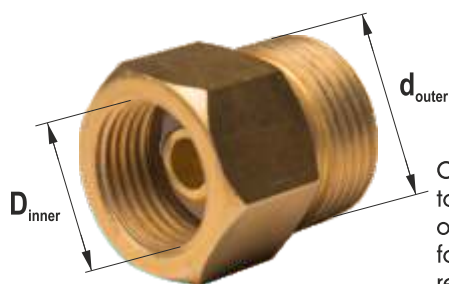
Oxygen rarefying manifold



Air inflating manifold

CYLINDER ADAPTER

CYLINDER ADMISION

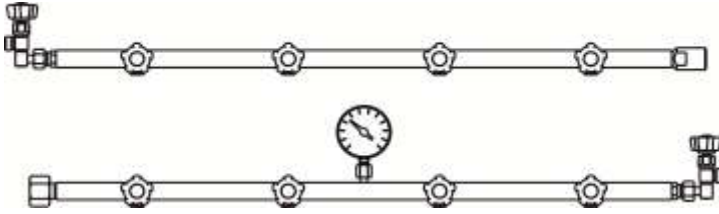


Cylinder adapter – to be mounted to cylinders of small and average bulk for connection to pressure regulators.

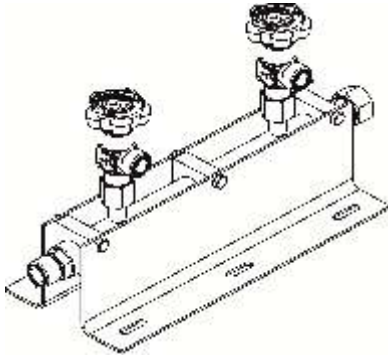


Thread	Order No.
D _{inner} Cп 21,8 by D _{outer} G 3/4	962.000.00
D _{inner} G 3/4 by D _{outer} Cп 21,8	962.200.00

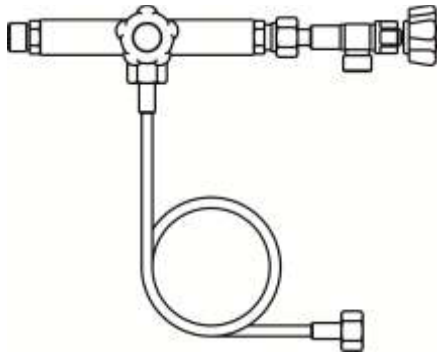
Thread	Length, mm	Order No.
G 3/4 by Cп 21,8	670	962.300.00
G 3/4 by G 3/4	670	962.300.01
G 3/4 by G 3/4	1500	962.300.03

OXYGEN MANIFOLD 2X4 CYLINDERS


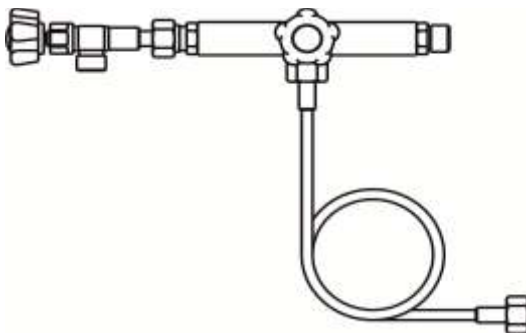
Number of attached cylinders	8
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	2560x200x150
Weight, no more than, kg	14
Order No.	847.000.03

OXYGEN MANIFOLD 1X2 CYLINDERS


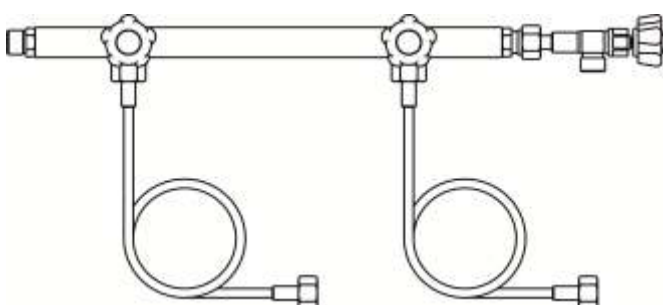
Number of attached cylinders	2
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	410x220x145
Weight, no more than, kg	6
Order No.	847.000.04

OXYGEN MANIFOLD 1X1 CYLINDER


Number of attached cylinders	1
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	410x330x145
Weight, no more than, kg	2,7
Order No.	847.000.05

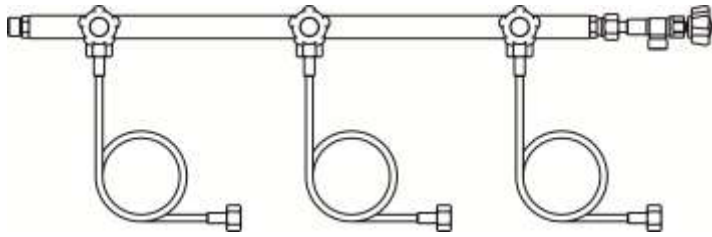
OXYGEN MANIFOLD 1X1 CYLINDER


Number of attached cylinders	1
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	410x330x145
Weight, no more than, kg	2,7
Order No.	847.000.06

OXYGEN MANIFOLD 1X2 CYLINDERS


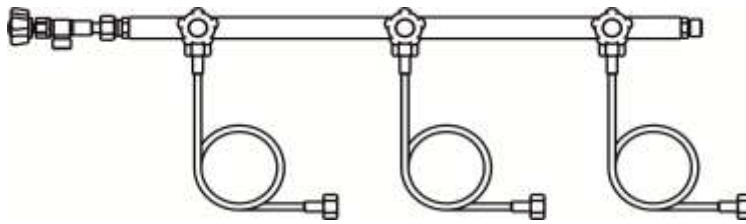
Number of attached cylinders	2
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	710x220x145
Weight, no more than, kg	5
Order No.	847.000.07

OXYGEN MANIFOLD 1X3 CYLINDERS



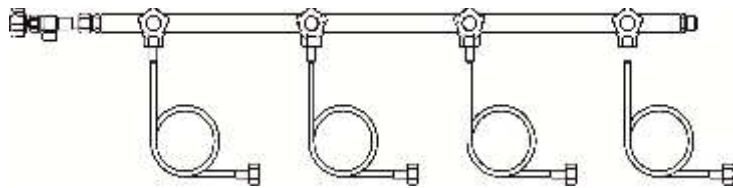
Number of attached cylinders	3
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	1010x220x145
Weight, no more than, kg	7,3
Order No.	847.000.08

OXYGEN MANIFOLD 1X3 CYLINDERS



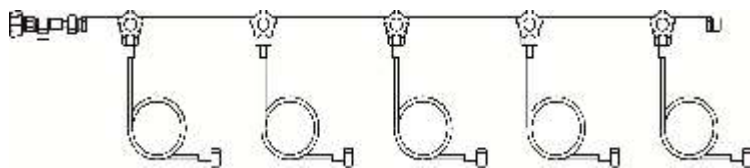
Number of attached cylinders	3
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	1010x220x145
Weight, no more than, kg	7,3
Order No.	847.000.09

OXYGEN MANIFOLD 1X4 CYLINDERS



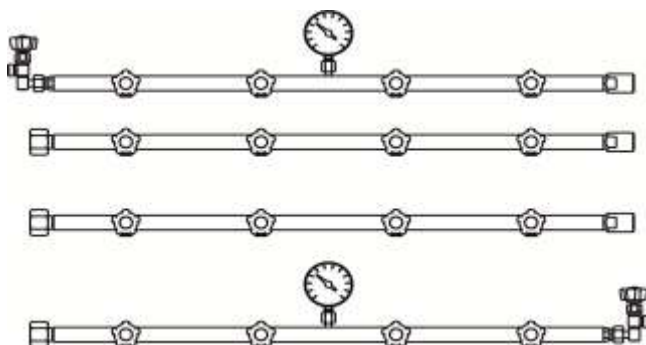
Number of attached cylinders	4
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	1310x220x145
Weight, no more than, kg	9,6
Order No.	847.000.11

OXYGEN MANIFOLD 1X5 CYLINDERS



Number of attached cylinders	5
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	1610x220x145
Weight, no more than, kg	11,9
Order No.	847.000.12

OXYGEN MANIFOLD 4X4 CYLINDERS



Number of attached cylinders	16
Inside diameter of collector, mm	25
Maximum working pressure of oxygen at the collector's inlet, kgf/cm ²	200
Overall dimensions, mm (LxHxW)	5100x200x150
Weight, no more than, kg	28
Order No.	802.000.02

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

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

OXYGEN DISPENSING STATION PGK-150-3 DM


The oxygen dispensing station PGK-150-3DM is designed for regulating oxygen supply to the consumer depending on the used gas-flame equipment.

The station contains one inlet and two lines of gas distribution:

- 1) line with a pressure regulator – for connecting high-power cutting torches with their inlet pressure equal to that in the network
- 2) line with a pressure regulator – for reducing the pressure when it enters the gas station to the values indicated in the cutting torches' manuals and delivering it to the place of consumption.

Oxygen	GOST 5583-78
Inlet pressure	16 kgf/cm ²
Outlet working pressure (with/without a regulator)	up to 16 / 1-5 kgf/cm ²
Capacity, no more than (with/without a regulator)	150 / 10 m ³ /h
Inlet connection	G3/8-B + coupler + sleeve
Outlet connection (with/without a regulator)	M16x1,5 / M16x1,5
Based on the pressure regulator	SKO-10-2
Overall dimensions	700x240x170 mm
Weight	9,5 kg

Designation	Order No.
PGK-150-3 DM	844.000.00

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

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

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/CO2-25-3 DM	846.000.00

ARGON / CO₂ DISPENSING STATION PG AR/CO2-25-3,5 DM

**Open tapping point for central gas supply systems
Ar/CO2-25-3,5 DM (2 welding units)**

Used for gas lines or other centralized systems of supplying shielding gas to the point of welding.

- simultaneous operation of two welding units
- clearly visible readings of set flow at flow meters
- shut-off valve for terminating gas supply
- steel pipe weld adapter
- wall bracket

Supplied gas	Argon, CO ₂ and their mixtures
Inlet pressure	2,5 (25) 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	G 3/8-B
Overall dimensions	259x230x147 mm
Weight, no more than	1,71 kg

Designation	Order No.
PG AR/CO2-25-3,5 DM	846.000.01

CUTTING NOZZLE FOR CUTTING HOT METAL for continuous casting machines



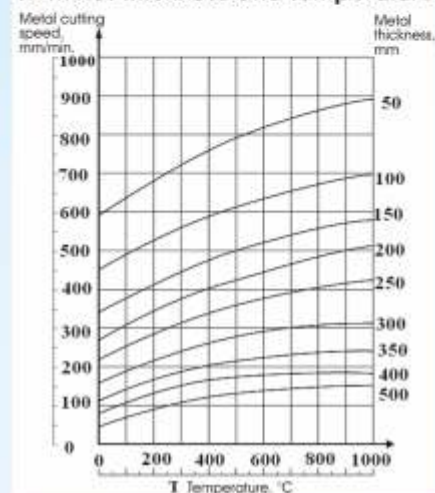
Cutting oxygen pressure, kgf/cm ²	Cutting oxygen consumption, m ³ /h	Preheating oxygen pressure, kgf/cm ²	Preheating oxygen consumption, m ³ /h	Methane pressure, kgf/cm ²	Methane consumption, m ³ /h	Cutting thickness, mm	Cutting width, mm
10-12	20-90	2-2,5	19-24	1-1,5	21-32	50-500	4-7

Designation	Cutting thickness, mm	Thread diameter	Order No.
MNLZ - 200	200	M28x2	815.000.02
MNLZ - 300	300	M28x2	815.000.04
MNLZ - 400	400	M32x2	815.000.03
MNLZ - 500	500	M32x2	815.000.05

The nozzle ensures:

- high cutting speed;
- high cut surface purity;
- operational safety and stability.

Relation of cutting speed to metal thickness and temperature



WATER SPRAYERS FOR COOLING IN METALLURGY

Since 2008 as per customer's order "Donmet" plant has been manufacturing sprayers for:

- ▶ continuous casting cool-down;
- ▶ water descaling;
- ▶ rollers cool-down and lubrication;
- ▶ application of coatings.

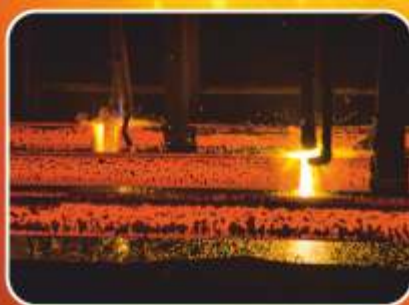
The manufacturing process includes design research, production and quality control. The testing is carried out at a special bench for sprayers' examination.

Controlled variables:

- ▶ metering characteristics;
- ▶ dispersion angle;
- ▶ flame jet shape;
- ▶ dispersivity.



CUTTING • WELDING • BRAZING



AUTOGENOUS EQUIPMENT PLANT[®]
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