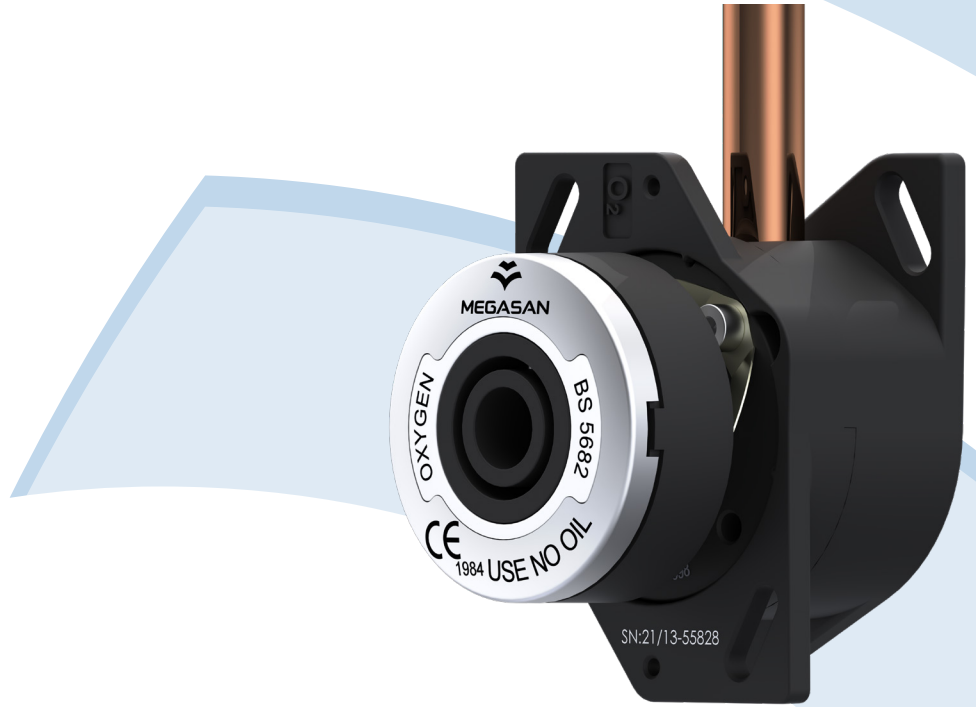




MEGASAN

MEDICAL GAS OUTLETS

Maintenance and Operating Manual



Model

MGS-xP-yz Medical Gas Outlets

MGS-VP-yz Medical Vacuum Outlets

x: O (Oxygen), A (N₂O), H4 (B.Air 4 Bar), H7 (B.Air 7 Bar), K (Carbon Dioxide)

y: B (BS-İngiliz normu), D (DIN-Alman normu), F (AFNOR-Fransız normu), OM (OHMEDA-Amerikan)

z: B (Tubular), P (pneumatic 8mm), PH (pneumatic 10mm), R (Tubular Record)

MGS-AGTPx Waste Gas Discharge Outlets

x: P (Pump Type), V (Venturi Type)



Product Brand and Model

MEDICAL GAS OUTLETS

Manufacturer / Exporter Company

Megasan Medikal Gaz Sistemleri Tıbbi Alet ve Cihazlar A.Ş

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Warranty Period

2 Years

Economic Life

10 Years

Version Table

Version Table			

FOREWORD

This guide is prepared to provide basic information to users seeking knowledge about Medical Gas Outlets, offering general insights into the use of these products. It is designed to meet the informational needs of users who require fundamental understanding of Medical Gas Outlets.

Dear Customers,

We would like to express our gratitude for the interest and trust you have shown in our company and products. Our Medical Gas Outlets, chosen by you, are presented to you with an extensive service network and the assurance of Megasan.

Please ensure that you validate the warranty certificate with your seller. Any tampering with the serial numbers on the warranty certificate or the absence of serial numbers on the product renders the warranty void. The seller is obligated to accurately fill out the warranty certificate during the sales process. In cases where the warranty certificate is not fully completed, the starting date of the warranty period is considered as the date of dispatch from Megasan.

During the warranty period, service operations will be carried out by the authorized dealer/technical service specified in the warranty certificate.

The following situations are not covered by the warranty, and the repair of these faults will be done at a cost:

Malfunctions caused by the misuse of the product contrary to the instructions in the user manual.

Damages and faults resulting from natural disasters, fire, accidents, and improper use of the product.

This guide in your hands will assist you in installing and using the system. We hope you enjoy using our products and remain satisfied with them.

With respect,





Medical Gas Outlets comply with the interface criteria published by the Ministry of Health of the Republic of Turkey.

Medical Gas Outlets operate in full compatibility with International Gas Systems.

IMPORTANT

- > The lifespan of the system you have purchased is 10 years.
- > Megasan provides a warranty for the purchased product for a period of years from the delivery date.
- > The WARRANTY CERTIFICATE is provided within the product.
- > The list of AUTHORIZED SELLERS and DEALERS is provided together.
- > Please validate your Warranty Certificate with your seller.
- > In the event of a malfunction, the product should only be repaired by an authorized technician. Any interventions made by unauthorized individuals render the product out of warranty coverage.
- > Please have the installation and routine maintenance of your system performed by the specified authorized seller and authorized technical service.



ATTENTION

Medical Gas Outlets must meet the following conditions to prevent any adverse effects on you and the environment:

- >Do not open the box outside of authorized service. Do not approach with fire.
- >Avoid any contact with oil.
- >Do not immerse Flowmeters in water. This action renders the product warranty void.

LEGAL DISCLAIMER

Megasan Medical Gas Systems Medical Gas Outlets, when used outside of the provided features and applications or contrary to the usage instructions, will not hold **Megasan Medical Gas Systems Medical Devices and Equipment Inc.** responsible for any material damage, loss of life, or similar situations that may arise. The buyer acknowledges and declares awareness of this warning upon purchase.”

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1. Important Notes

- Before using the Medical Gas Outlets, please read this manual.
- Maintain the temperature of the environment where the Medical Gas Outlets is located within a range of +10 °C as a minimum and +40 °C as a maximum. Freezing may occur outside these temperature values, and malfunctions resulting from freezing will not be covered by the warranty.
- Be careful not to let the Medical Gas Outlets come into contact with oil and oil mist.
- Do not disassemble any parts of the Medical Gas Outlets. Avoid making any changes to the Medical Gas Outlets. Clean the Medical Gas Outlets by rubbing it with a clean, dry cloth, or use a cleaning solution. Do not use chemical liquids, aerosol cleaners, or flammable liquids (such as thinner, gas oil, etc.) for cleaning.
- Medical Gas Outlets usage should only be performed by individuals who have received proper training. Before use, check the connections and ensure there are no leaks.
- Be cautious to keep oxygen or oxygen providers away from sources of ignition, heat, or electrical switches.
- Do not smoke and avoid approaching fire in workplaces where Oxygen and Nitrogen gas are present, as flashing and explosion may occur due to the interaction of oxygen with fire.
- Oxygen itself is not flammable, but anything burning in the presence of oxygen burns faster. In an oxygen-enriched environment, oil and grease are explosive. Therefore, do not use flammable substances produced from oil or petroleum on or around devices related to oxygen. Do not bring oily substances in any form close to the Medical Gas Outlets.
- Remember that inhaling nitrogen gas has a stupefying effect, and in case of any leakage, individuals in the area where it is used may be affected.
- Due to the potential harm of inhaling excessive amounts of oxygen gas to human health, it should be noted that inhaling oxygen gas in the event of any leakage can be harmful to individuals breathing oxygen gas.
- If the Medical Gas Outlets piping or connected equipment is not working normally, do not use it and contact your seller. Remove all protective covers before installation.

2. Economic Life and reason

- Due to the fact that medical devices generally undergo technological innovation in the range of 6-10 years, a new medical device may be better in terms of functionality, efficiency, reliability than older devices. Therefore probability of medical devices having new technology to provide better experiences in patient treatment may be higher.
- Medical devices may have to be replaced with updated medical device versions for maintaining compliance with quality and safety standards which are specified by health authorities and regulatory institutions.
- Maintenance activities should be made periodically for medical device to work with same performance continuously. Since 5% of annual cost of product will return within 3-5 years, 10% of annual cost will return in 5-10 years, and 20% of product cost will return as maintenance cost; there may be need for supplying new product at the end of this period.
- The parts used on the device wear out and get old over time, which leads to the supply of spare parts. The supply of spare parts for old devices may become difficult in the future. Our company commits to supply provide spare parts for “ Gas Outlets” for 10 years it produce.
- Economic life of product is determined as 10 years due to reasons we explained above.

3. Intended Use

They are Patient Treatment Auxiliary equipment used in the transmission of medical gases produced in Medical Gas Centers and transported through copper pipes to devices. They are passive when they are not installed on receiver and it does not allow gas flow.

4. PRODUCT INSPECTION

- Read this manual before using. When you do not understand any explanation in this manual, contact with your dealer before use.
- Once you purchase the product open its package and check whether it is damaged. If there is any failure do not use the product and proceed the process to return it.

5. Accessories

Outlet Box and Cover: When medical gas outlets are installed on wall rather than inside unit (for example patient bedside unit) they protect against environmental conditions.

6. Cleaning and Sterilization Instructions

You can clean the gas sockets by wiping or rubbing them with a clean cloth moistened with an alcohol-based cleaning solution.

7. Maintenance Instructions - Periods

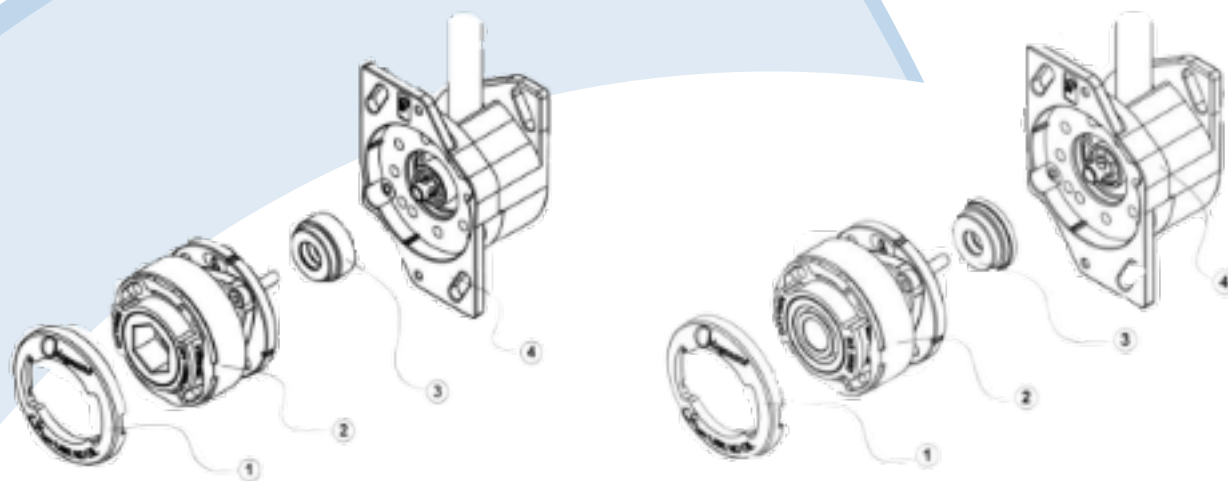
DESCRIPTION	PERIOD	Models	RESPONSIBLE
		ALL GAS OUTLETS	
Damage Control	6 MONTHS	X	Authorized Personnel
Performance Control	6 MONTHS	X	Authorized Personnel

7.1. Medical Gas Outlet Maintenance Kit

Spare parts list for; BS-DIN Standard Medical Gas outlets (Except BS-CO2)

BS Standard Maintenance Kit For Medical Gas Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	Medical Gas Outlet Repair Kit-BS	MG-TT-MMGP-B	3	1
1.1	BS-Capsule	PP-000123		1
1.2	MMGP- Gas Flow Valve Pressure Seal	PLP-KCK000438		1
1.3	Ø7.55x2.62mm O-Ring (MMGP-Capsule Oring Nitrile)	HP-OR-005467		1

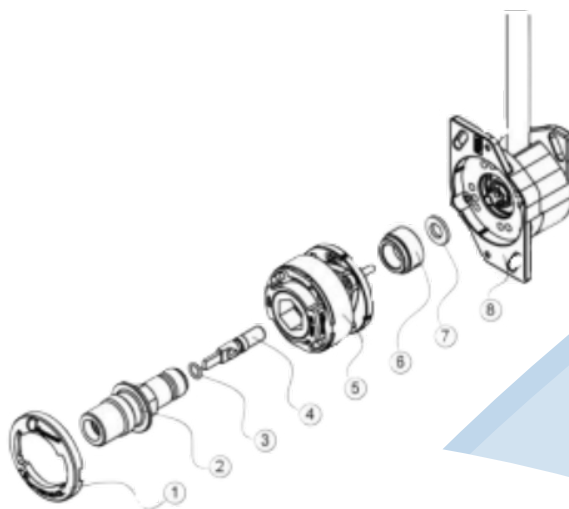
DIN Standard Maintenance Kit For Medical Gas Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	Medical Gas outlet Repair Kit-DIN	MG-TT-MMGP-B	3	1
1.1	DIN-Capsule	PP-000141		1
1.2	MMGP- Gas Flow Valve Pressure Seal	PLP-KCK000438		1
1.3	Ø10x2.2 mm O-Ring (IBD-BY-23)	HP-OR-005385		1



- Remove the MMGP-Outlet Cover (1) by pulling it towards you with a flat screwdriver.
- The 2 M4 bolts in the MMGP-Socket Housing Set(2) are removed with a allen 3 and separated from the base block(4).
- MMGP-TT DIN-BS(3) located at the bottom of the MMGP-Outlet housing set Set(2) is removed and replaced with a new one and reassembled according to the order of disassembly.

NOTE: MMGP-TT DIN-BS (3);must be installed with the long edge on top the German (DIN) standard, it , and it must be installed with the long edge on the bottom in the British (BS) standard,.

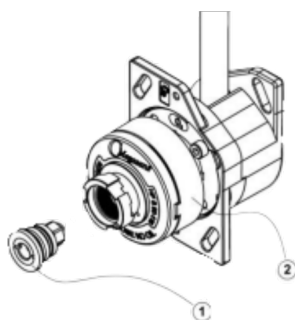
Spare Parts List for Medical Gas Sockets (BS-CO2)



BS Standard Maintenance Kit For Medical CO2 Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	MMGP-Gasket Holder -(NF-OHM)	PP-000184	6	1
2	MMGP- Gas Flow Valve Pressure Seal	PLP-KCK000438	7	2
3	Tap Oring (Ø6.07x1.78mm) (PR-11)	HP-OR-005305	3	1

- Remove the MMGP-Outlet Cover (1) by pulling it towards you with a flat screwdriver.
- The 2 M4 mounting screws that provide the connection of the MMGP-CO2 Housing set() are removed with the help of an allen 3 and separated from the MMGP-Base Block(8).
- The BS CO2 Gas Flow Valve (..) located at the bottom of the MMGP-CO2 Body Set (5) is removed by turning it. The Pressure Seal(6) located at the bottom of the flap should be removed from its place and a visual check should be made whether there is any wear or not. If there is wear, it should be replaced with a new one.
- At this time, the “MMGP- Gas Transition Valve Pressure Seal (7) “must be replaced with a new one.
- When the BS-CO2 Gas Transition Valve(6) is removed, the BS-CO2 Nist Housing(2) is easily removed from its housing.
- he BS-CO2 Flap located in the inner part(2) of BS-CO2 Nist Body(2) tis removed by pulling slightly and the BS-CO2 Flap O-ring located on its surface(3) is removed from its place and replaced with a new one and reassembled according to the order of disassembly.

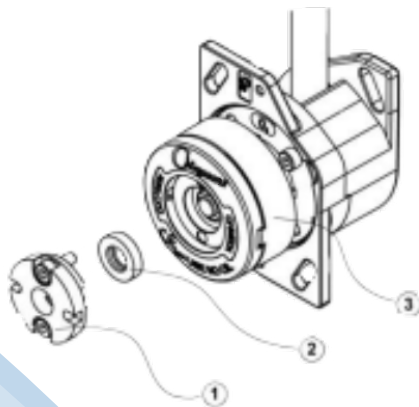
Spare parts list for NF Standard for Medical Gas Outlets



Maintenance Kit For AFNOR Standard Medical Gas Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	Medical Gas Outlet Repair Kit-AFNOR	MG-TT-MMGP-F	1	1
1.1	MMGP-Afnor Gasket O2	PLP-POM-DE-000421		1
1.2	Tap Oring (Ø6.07x1.78mm) (PR-11)	HP-OR-005305		1
1.3	Ø10x2.2 mm O-Ring (IBD-BY-23)	HP-OR-005385		1

- Remove the Capsule plug (2) located on the MMGP-NF Housing (2) with a screwdriver and replace the seals numbered 1.1 and 1.3 located on it, pull out the flap pin in the MMGP-NF Housing and reassemble the outlet by replacing the seal numbered 1.2 located on it.

Spare parts list for OHM Standard Medical Gas Sockets



OHMEDA Standard Maintenance Kit For Medical Gas Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	OHM Silicone Jack Gasket	PLP-KCK-000354	2	1

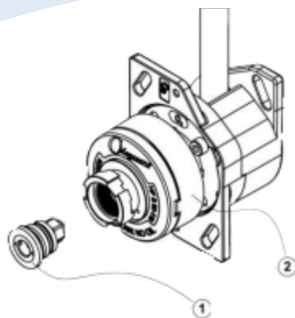
- The M4 mounting screws that provide the connection to the OHM Body Plug (1) on the MMGP-OHM Body (3) are removed by using a 3-gauge allen.
- The OHM Silicone Jack Gasket (2) located at the bottom of the OHM Body Plug (1) is removed, replaced with a new one and reassembled in the order in which it was disassembled.

7.2. Medical Vacuum Socket Maintenance Kit

Spare parts list for BS - DIN and OHMEDA Standard Medical Vacuum Outlet;

BS, DIN and OHMEDA standard the repair process and spare parts list of the central medical vacuum outlet are the same as the maintenance kit and spare parts list of the central medical gas outlet

Spare parts list for NF Standard;

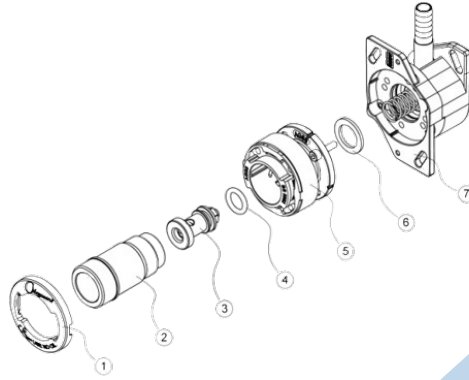


Maintenance Kit For AFNOR Standard Medical Gas Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	Medical Gas Outlet Repair Kit-AFNOR	MG-TT-MMGP-F	one	1
1.1	Afnor Gasket Vacuum	XP-NF-37		1
1.2	Tap Oring (Ø6.07x1.78mm) (PR-11)	HP-OR-005305		1
1.3	Ø10x2.2 mm O-Ring (IBD-BY-23)	HP-OR-005385		1

- Remove the Capsule plug (2) located on the MMGP-NF Housing (2) with a screwdriver and replace the seals numbered 1.1 and 1.3 located on it, pull out the flap pin in the MMGP-NF Housing and reassemble the outlet by replacing the seal numbered 1.2 located on it.

7.3. Medical AGSS Outlet Maintenance Kit

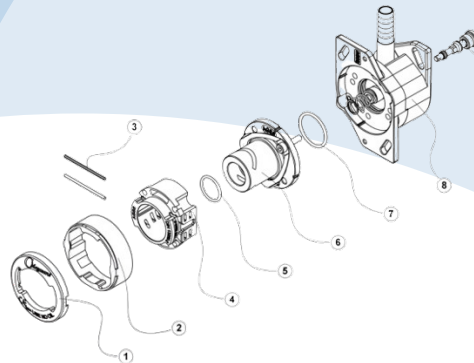
Spare parts list for BS Standard Medical AGSS socket;



Maintenance Kit For BS Standard Medical AGSS Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	MMGP-BS AGSS Body Flap O-ring	MMGP-56	4	1
2	MMGP-Flap Pressure Seal	PLP-KVK-000439	6	1

- Remove the MMGP-Outlet Cover (1) by pulling it towards you with a flat screwdriver.
- Remove the 2 M4 mounting screws that connect the MMGP-AGSS Housing set(5) with the help of a No 3 allen and separate them from the MMGP-AGSS Base Block(7).
- The Valve Pressure Seal(6) located at the bottom of the MMGP-AGSS Housing set(5) should be removed from its place and a visual check should be made for wear. If there is wear, it should be replaced with a new one.
- The BS-AGSS Housing(2) connected to the MMGP-AGSS Housing set(5) is disassembled by turning it.
- The BS-AGSS Body Flap(2) located in the inner part of the BS-AGSS Body(3) is removed by pulling slightly and the O-ring of the BS AGSS Body Flap(4) located on it is removed from its place and replaced with a new one and reassembled according to the order of disassembly

Spare parts list for DIN Standard Medical AGSS outlet;



DIN Standard Maintenance Kit For Central Medical AGSS Outlet				
No	Part Name	Stock Code	Part No.	Quantity
1	MMGP-DIN AGSS Body O-ring	HP-OR-005403	5	1
2	MMGP-DIN AGSS Base Block O-ring	HP-OR-005241	7	1
3	MMGP-TT DIN AGSS Venturi		9	1

- Remove the MMGP-Outlet Cover (1) by pulling it towards you with a flat screwdriver.
- The MMGP-Pin Closer (2) is pulled and the MMGP-Pin Seat (4) is removed from its tabs.
- MMGP Lock Mechanism pins which provide MMGP Pin Seat(4) connection are removed by pushing from their tip and MMGP Oin Seat is released.
- The MMGP-DIN AGSS Body O-ring (5) included in the MMGP-DIN AGSS Body Set (6) is removed with tweezers etc. and replaced with a new one.
- The 2 M4 mounting screws that provide the connection of the MMGP-DIN AGSS Housing set(6) are removed with the help of a No 2 allen and separated from the MMGP-AGSS Base Block(8).
- The MMGP-DIN AGSS Base Block O-ring (5) located inside the MMGP-DIN AGSS Base Block (7) is removed with tweezers etc. and replaced with a new one.
- The MMGP-TT DIN AGSS Venturi(9) located at the bottom of the MMGP-DIN AGSS Base Block(7) is disassembled with the help of a screwdriver and replaced with a new one and reassembled according to the order of disassembly.

8. Handling and transportation

- The products are cleaned after checks.
- The product is placed in a nylon bag.
- The product is placed in cardboard boxes against impacts and taped so that it will not scatter and get dust.
- There is the brand On the product box, and product information is present inside.
- The storage and usage conditions of the product are defined on the label.

Special packaging boxes are available for the units with the Product Code and Name indicated below. Symbols and explanations are indicated on the box.



Model	Width(A)	Height(C)	Length(B)
MGS-xP-xyz	100 mm	70 mm	210 mm
MGS-VP-xyz	100 mm	70 mm	210 mm
MGS-AGTx	100 mm	70 mm	210 mm

9. Technical Characteristics, Safety Tips and Points to Be Considered in its Use

	Be careful. Consider the warning and directives regarding product.
	Do not remove any part of product, do not attempt to replace part.
	Due to fact that inhaling oxygen gas more than need is harmful for human health, it should not be forgotten that it will harm the persons inhaling oxygen gas in case of leakage.
	It should not be forgotten that inhaling nitrogen gas has anesthetic effect and it may have fatal effects for the persons in the area where they are used in leakage case.
	It should not be forgotten that inhaling nitrogen gas has anesthetic effect and it may have fatal effects for the persons in the area where they are used in leakage case.
	Do not approach with fire at the points where oxygen is used. Fire can cause explosions and may lead flames become greater together with oxygen
	Do not smoke at the points where oxygen is used. Fire can cause explosions and may lead flames become greater together with oxygen

	Do not use with oil in an oxygen-containing environment.
	Read the user manual carefully. (Operating manual should be read completely and clearly for product to be used properly throughout economic life and for preventing accident which are caused directly or indirectly from product)
	Protect devices containing oxygen from temperatures below - 20 ° C and above +50 ° C.
	We recommend using the device under standard atmospheric conditions (pressure = 1 atm, temperature = 20-22 °C)
	Make sure that the humidity of the environment where the device is used is between 30% and 60% to prevent bacterial infection,.

10. Patient Population

Gas outlets are designed for general use. Medical gas from center is designed to deliver gas from center to zones such as patient rooms, examination, intervention, intensive care, surgical room, emergency department. They are not designed for specific patient group instead they are designed for all patient groups having treatment.

11. Indications

Considering the intended use, they are designed to deliver medical gas produced from center to the users. Considering this situation, it is produced for general treatment purposes, not for any type of disease.

12. Contraindications

Since gas outlets are not directly therapeutic equipment, it is impossible to define areas where they cannot be used.

13. Side Effects

Since gas outlets are not directly therapeutic equipment, there is no definition related to their side effects.

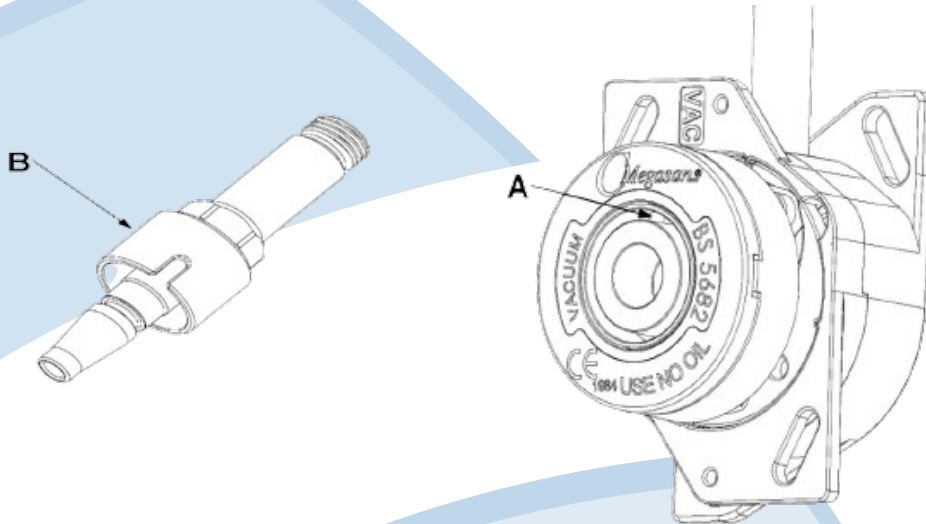
14. Differences between models And Operating principles

14.1. For BS 5682-2015 Standard

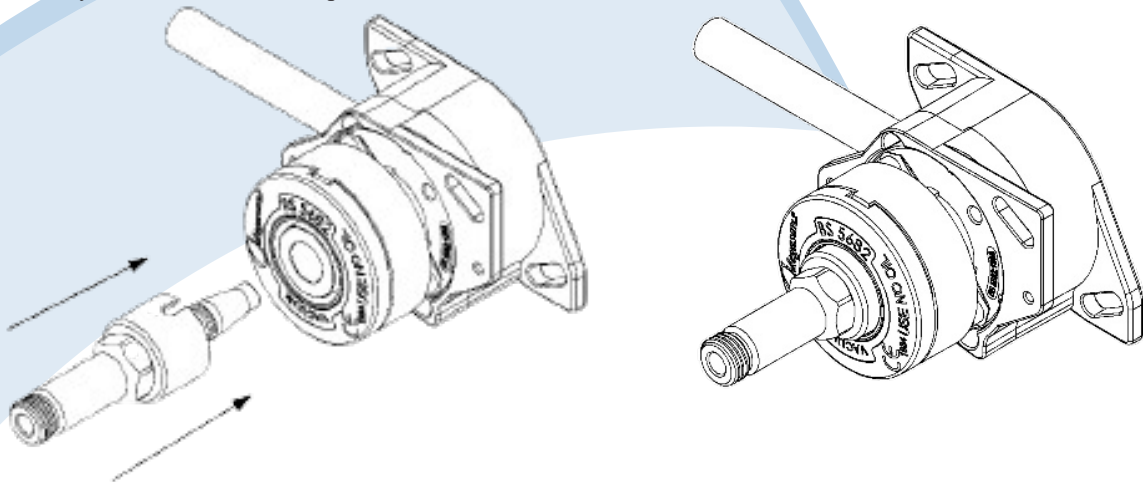
For BS Standard (Except AGSS and CO2);

They have rings (B) of different sizes specific to each gas in order to prevent the use of supply jacks produced in BS standard in gas sockets for incompatible gases, . Installation, use and removal of receivers with supply jacks manufactured in accordance with the BS standard;

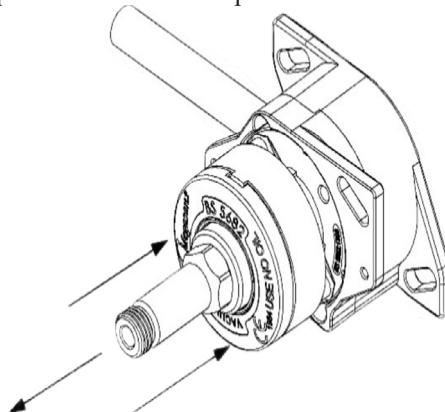
- Align the channel of the ring (B) by making sure that the pin (A) in the gas outlet shown in the figure below follows the 12 o'clock direction.



- After aligning the channel of the jack ring (B) and the pin (A) of the gas socket, press the receiver to which the power jack is connected in the direction of the arrow until you hear a seating sound. Leave it when you hear the click sound. Gas flow will be provided to your receiver after this process.

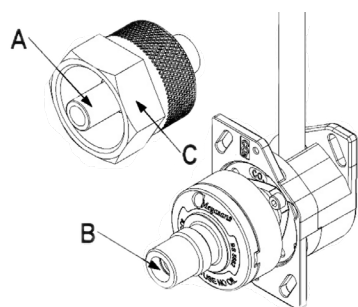


- Apply pressure on the lock ring in the direction of the arrow to remove the receiver (regulator, flowmeter, etc.) to which the supply jack is connected. Jack will pop outwards after this operation. You can remove your receiver from the gas outlet.

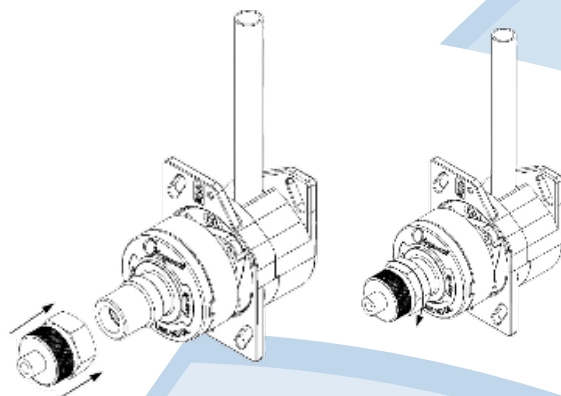


For BS 5682-2015 Standard CO2;

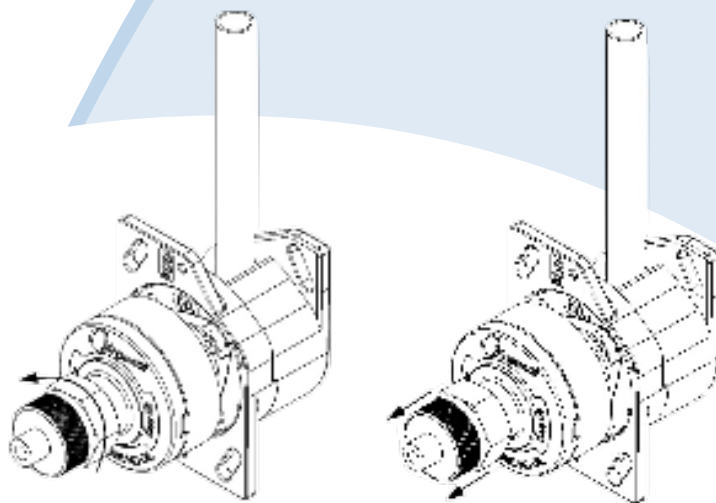
The installation of CO2 outlets manufactured in accordance with the BS standard on gas sockets differs from the installation of other supply jacks and supply jacks in its own standard. For installation, use and removal of CO2 outlets;



- Align the opening of the supply jack (A) to the inlet of the gas outlet (B) and press the supply jack well inward.



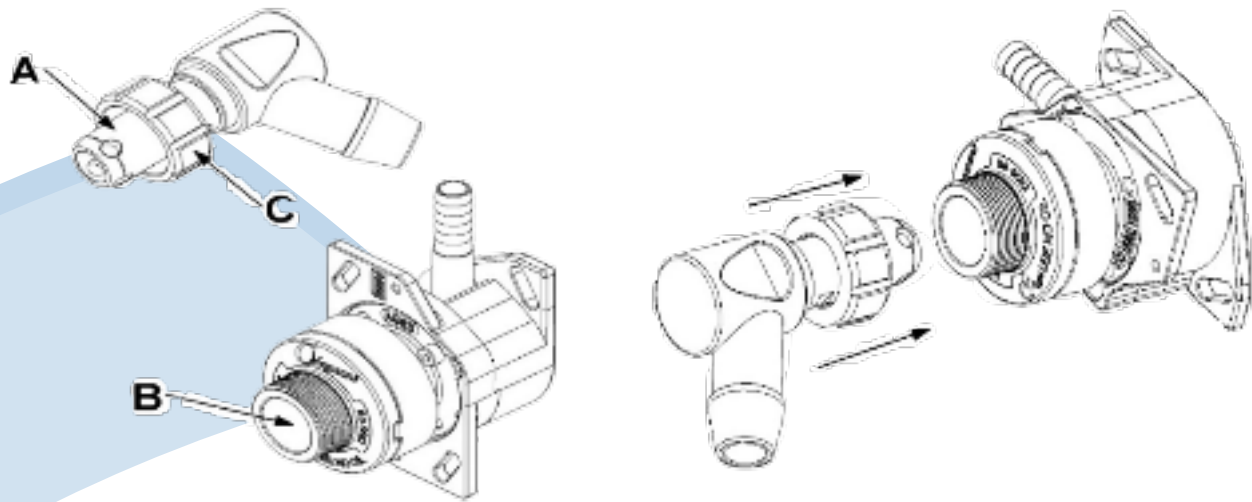
- Tighten the gland (C) clockwise to the end After inserting the feed jack into the slo. When you tighten the gland (C) completely, gas flow will be provided to your receiver.



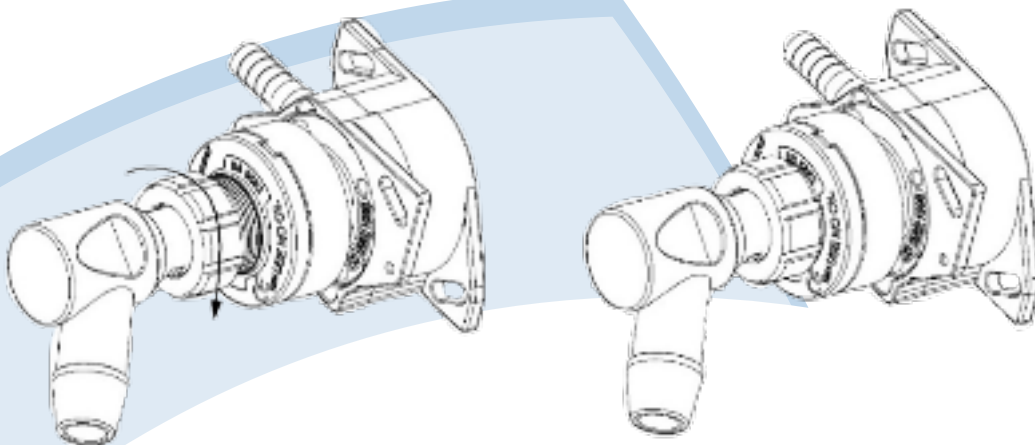
- Turn the gland (C) counterclockwise until it is released from the thread to remove the receiver to which the feed jack is connected. Once the gland (C) is free from the thread, you can remove the supply jack from the gas outlet.

For BS 5682-2015 Standard AGSS;

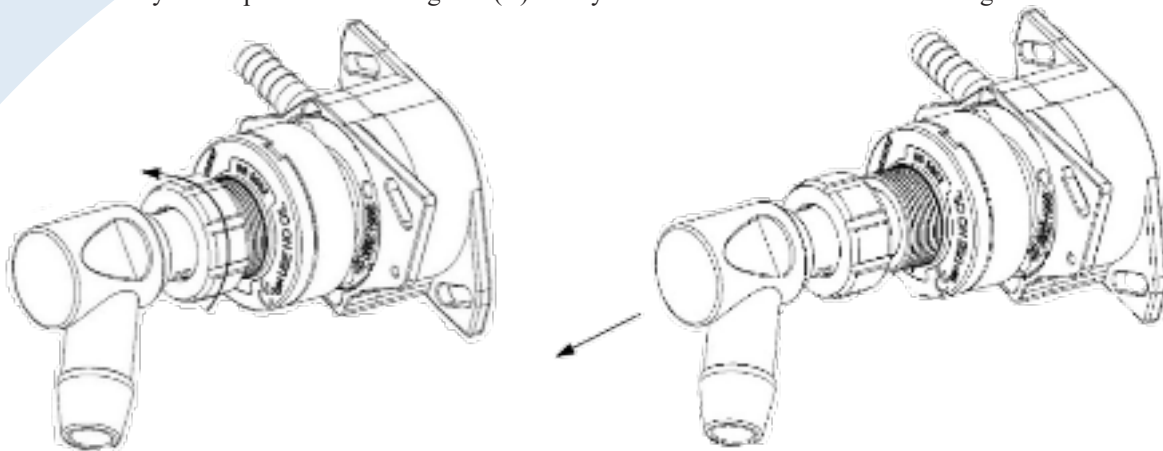
The receiver assemblies of AGSS sockets manufactured in accordance with the BS standard are different from other standards as well as from gases in their own standard. For installation, use and removal of AGGS outlets;



- Align the opening of the probe (A) to the inlet of the outlet (B) and press the probe well inward
- Tighten the gland by turning it clockwise (C) after the probe is seated in the slot. When you start tightening the gland (C), the gas in the installation will reach the probe and become available. The more you tighten the gland (C), the more gas will flow.



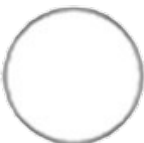
- Turn the gland counterclockwise to remove the probe. When the gland (C) starts to disconnect from the thread, the gas flow will be automatically interrupted. Loosen the gland (C) until you are sure that it is freed from the gear.



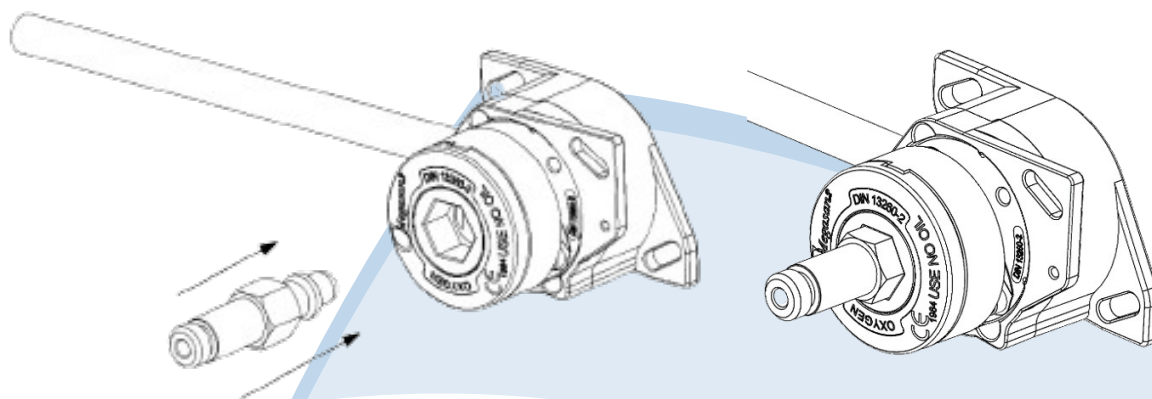
- You can remove the probe After cutting off the gas flow and freeing the gland (C) from the thread.

14.2. For DIN 13 260-2 Standard;

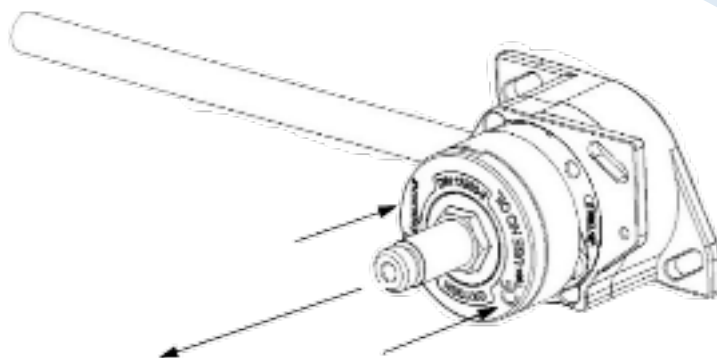
They are designed in different geometric shapes to prevent the use of supply jacks manufactured in accordance with the DIN standard in gas outlets for gas that are not compatible with each other. Installation, operation and removal of supply jack in accordance with DIN Standard;

OXYGEN	N ₂ O	AIR-4	AIR-7	VACUUM	CO ₂
					

- As shown in the figure, align the geometrically compatible surfaces designed specifically for gases as parallel and press in the direction of the arrow.
- Press in the direction of the arrow until you hear the click sound of the feed jack, and then release it after you hear the sound. Gas flow will be provided to your receiver after this process.

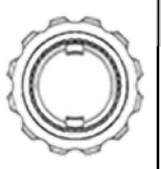


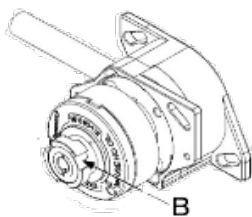
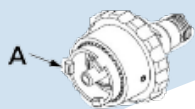
- Apply pressure on the lock ring in the direction of the arrow to remove the receiver (regulator, flowmeter, etc.) to which the supply jack is connected. When you perform this operation, the jack will pop outwards and will be free. You can easily unplug your receiver.



14.3. For NF S 90-116 Standard;;

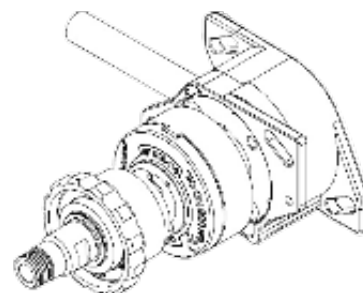
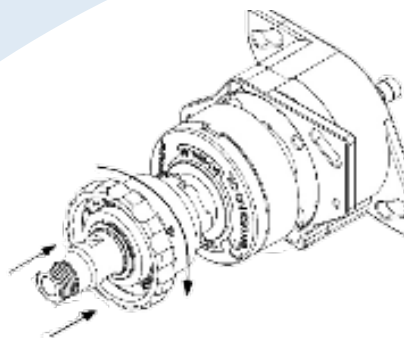
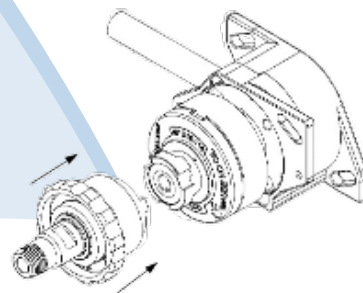
Due to external factors It has supply jack tabs (A) and gas outlet notches (B) of different dimensions and angles specific to gases to prevent the use of jacks manufactured according to the Afnor standard in gas sockets belonging to the wrong gas. For the installation, use and removal of jacks manufactured according to the Afnor standard.

OXYGEN	N2O	AIR-4	VACUUM
			

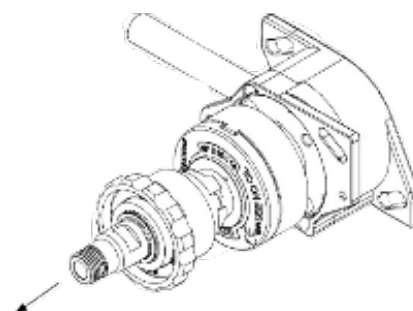
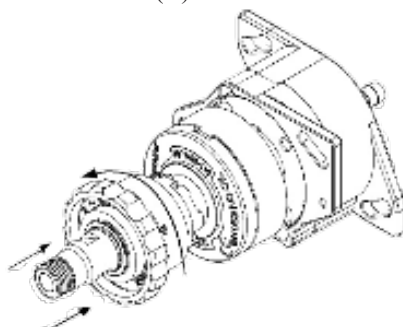


- Align the tabs of the supply jack connected to any receiver (A) to the notches located in the gas outlet (B) and press in the direction of the arrow to the receiver to which the supply jack is connected.

- Rotate and release the receiver connected to the jack clockwise while continuing to press. After this procedure, the gas flow in the gas outlet will be turned on and the gas will reach your receiver.

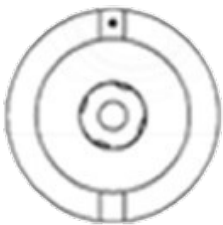
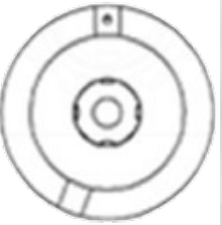
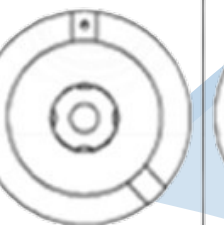
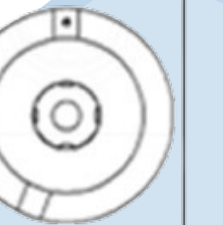


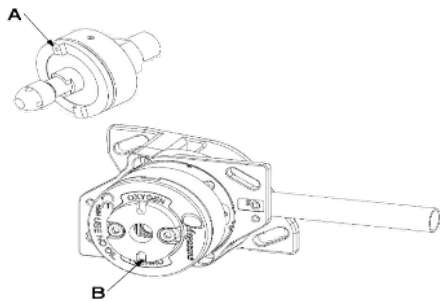
- To unplug the receiver, turn it counterclockwise while pressing on the receiver. Stop pressing when the feed jack tabs (A) are aligned with the gas outlet notches (B). Remove the receiver by pulling it to yourself.



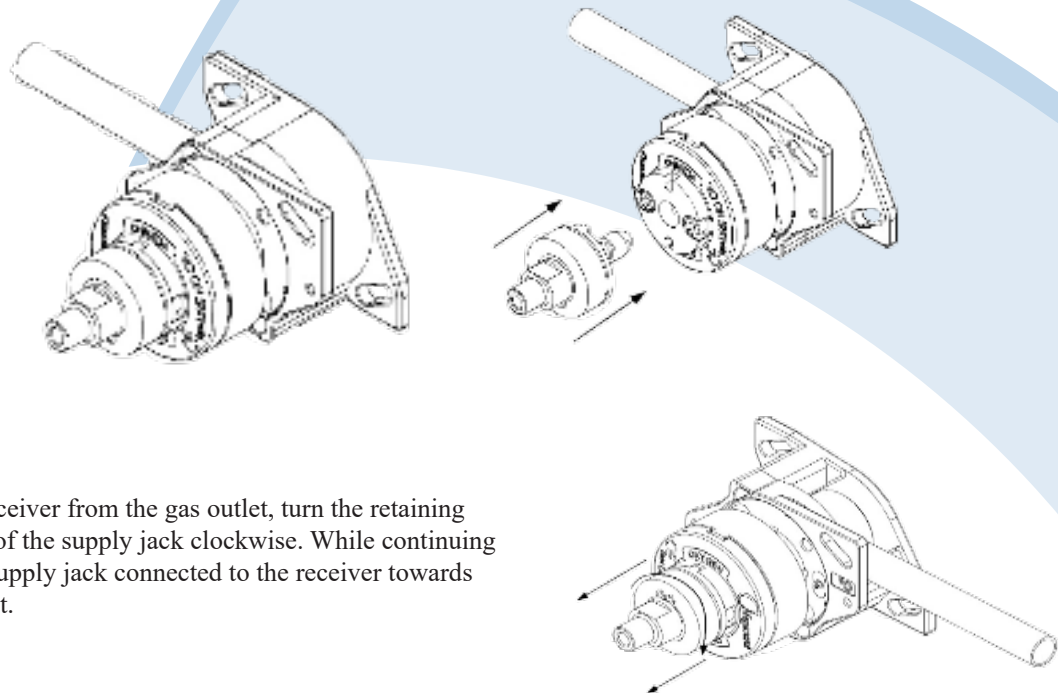
14.4. For the OHM Standard;

It has protrusions of different sizes and angles on the supply jack (A) and a slot of different sizes at the gas outlet mouth (B) specific to gases in order to prevent the use of jacks manufactured in accordance with the OHM standard in gas sockets belonging to the wrong gas. Installation, use and removal of receivers with OHM standard supply jacks to gas sockets;

OXYGEN	N2O	AIR-4	VACUUM
			



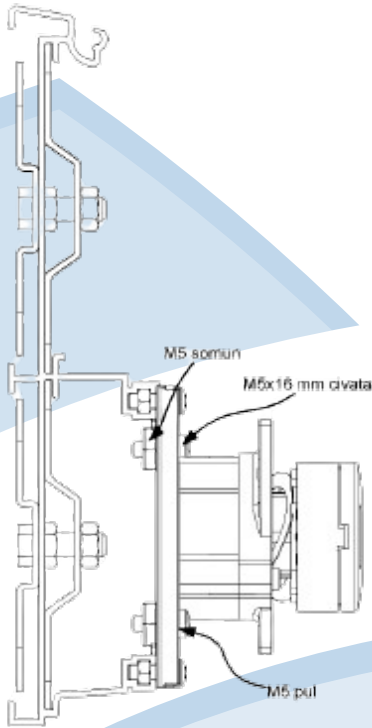
- Align the socket at the gas outlet opening with the protrusion (A) on the supply jack and press until you hear the locking sound. Stop pressing after you hear sound. Gas flow will be provided to your receiver after this process.



- To remove the receiver from the gas outlet, turn the retaining ring on the back of the supply jack clockwise. While continuing to turn, pull the supply jack connected to the receiver towards you and remove it.

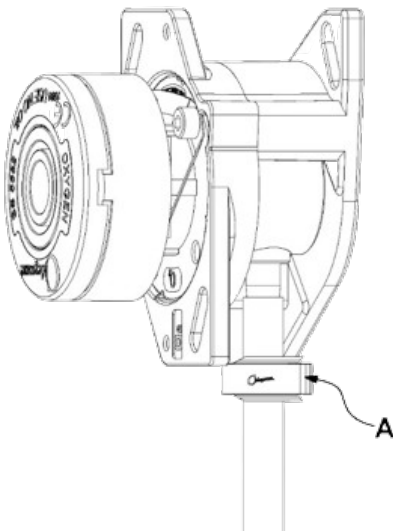
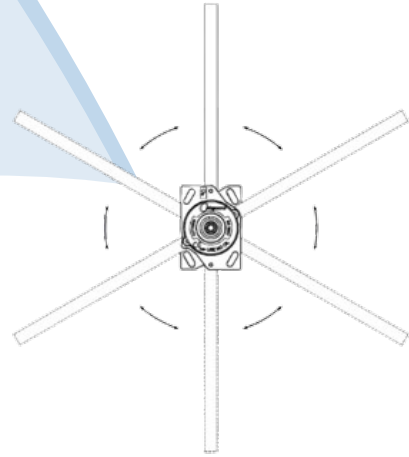
15. Connection and Assembly

- Medical gas outlets are installed by 2 installation holes as shown in figure to ducts which are prepared by special mold such as patient bedside, intensive care and pendant units. .



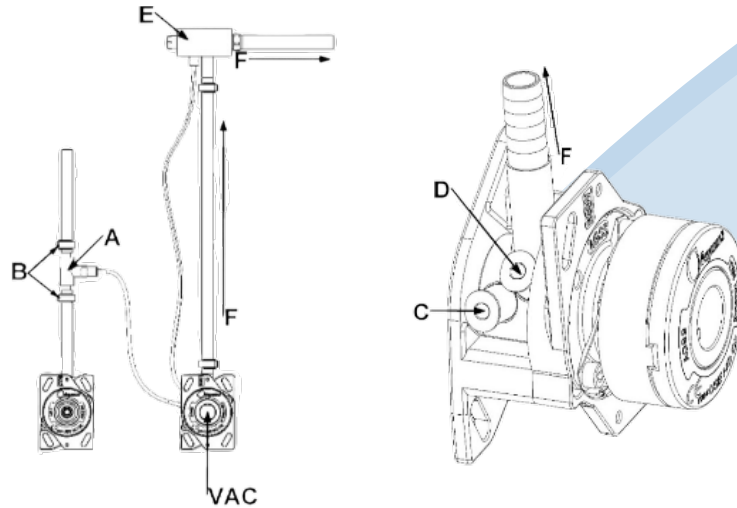
- First of all, 2 M5 nuts are passed into the channel, and then the gas outlet is installed in the channels.
- Then, the assembly process is completed by centering the nuts on the channel with the help of 2 M5 washers and M5x12mm bolts.
- It is connected to the medical gas line after the product is attached to the channel.

- A total of 3600 movement space is provided for the gas outlet copper pipes Thanks to the copper pipes and encryption index that can be adjusted between 0-900. As a result, gas outlets can be easily installed at the desired location, regardless of the direction of arrival of fixed hospital plumbing pipes.

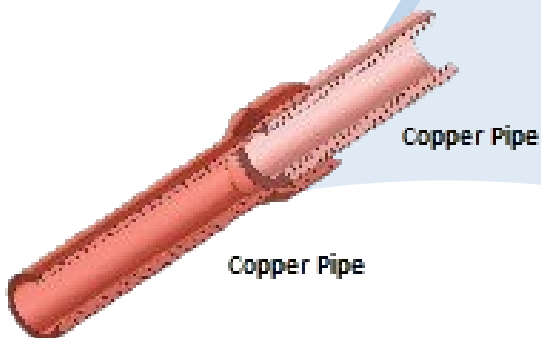


- The plumbing installations of the gas outlets used in pendants are made with flexible hoses. First of all, the hose is inserted into the flexible hose outlet of the gas outlet. The disposable clamp (A) with the logo on it is tightened over the hose and the flexible hose connection is completed.

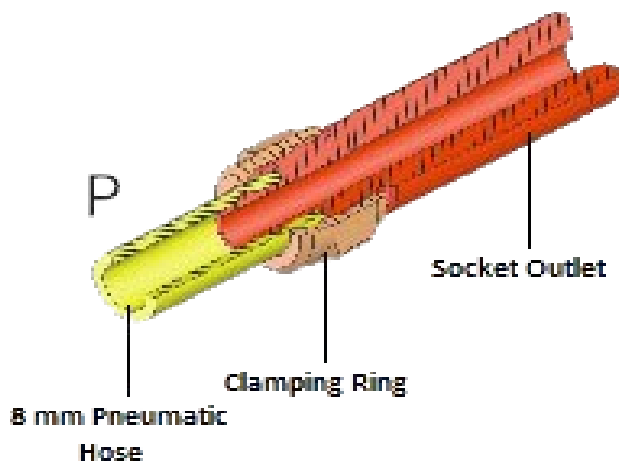
- For the installation of Venturi type AGSS sockets;
- Connect the “T” connection (A) to the compressed air line leading to the air outlet 7 using disposable pipe clamps (B).
- Connect the compressed air directed from the “T” connection (A) to the inlet pneumatic (C) leading to the AGGS valve mechanism with a pneumatic hose.
- Connect the outlet pneumatics from the AGSS valve mechanism (D) to the venturi device (E) with a pneumatic hose.
- When the probe is connected to the AGSS outlet, the vacuum formed in the venturi device (E) will suck from the gas outlet vacuum line (F).



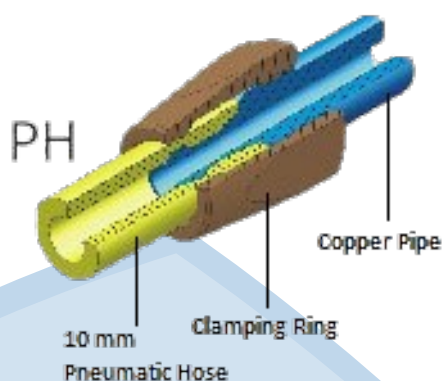
Gas outlets



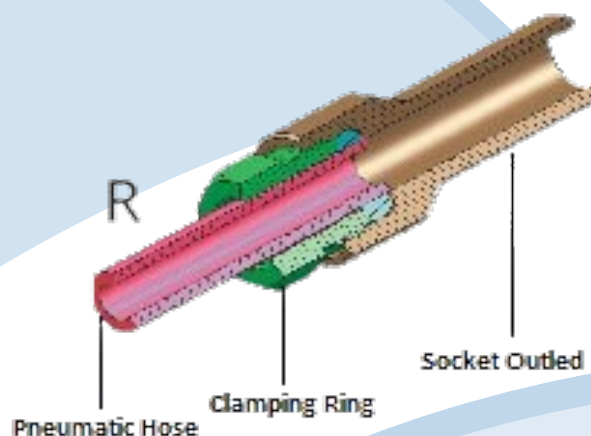
It is the connection of the copper pipe with a diameter of 8 or 10 mm, depending on the user's request, at the outlet of the gas outlet, with the copper pipe of the same diameter in the medical gas installation, with silver alloy welding



The 8 mm diameter pneumatic hose is first laid through the clamping ring and attached to the socket outlet end, made of brass material at the socket outlet, then the clamping ring is tightened onto the brass material and the pneumatic hose is connected to the socket outlet.



It is the process of connecting a pneumatic hose with a diameter of 10 mm to the end part made of brass material at the outlet of the outlet. the pneumatic hose with a diameter of 10 mm is laid through the tightening ring and laid to the end of the brass material, and then the tightening ring is tightened on the brass material.



It is the process of joining the pneumatic hose to the socket outlet made of brass material. The pneumatic hose is laid through the tightening ring and the tightening ring is tightened to the inner part of the brass material and the joining process is completed.

16. Possible Problems and Solutions

PROBLEM	DETAIL OF PROBLEM	POSSIBLE REASON	WHAT SHOULD BE DONE	RESPONSIBLE PERSON
The Adapter Does Not Enter	The adapter cannot be connected to the gas outlet	Trying to connect an adapter with a different standard.	Choose an adapter according to the outlet standard	Hospital technical personnel
There is a leak in the gas outlet	Leakage starts when the adapter jack is connected to the gas outlet	Trying to connect an adapter with a different standard. This jack damages the outlet connection and leakage occurs	Choose an adapter according to the outlet standard	Hospital technical personnel
	There is a constant gas leakage at the gas outlet	The gas socket was intervened with an object and the o-ring was damaged due to external factors. Therefore, there is a leakage	The Oring set should be changed	Hospital technical personnel
		The o-ring is worn out because it is time for maintenance, so there is a leak.		Hospital technical personnel
There is no gas flow from the gas outlet	Even if the appropriate jack is plugged into the gas outlet, there is no gas flow.	The line valves located at the zone or floor control unit or room inlet are closed	Zone or floor control unit or line valves located at the entrance of the room should be checked	Hospital technical personnel

17. Product package label

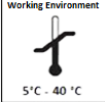
Because the Product Name and Code indicated below do not contain electrical details on the units
TYPE-2 Non-electrical Devices The package label is used.

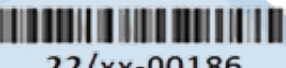
MGS-xP-yz Medical Gas Outlets
MGS-VP-yz Medical Vacuum Outlets
MGS-AGTx Central Medical AGSS Outlets

TYPE-2 Non-Electrical Devices package label:

		MEGASAN Medikal Gaz Sis. Tıbbi Alet ve Cihazlar İnş.Taah. Mad. Turizm İth. Ve İhr. San ve Tic.A.Ş. Merkez: Cumhuriyet Mah. Düvenciler Sok. Zafer İş Hanı Apt. No: 33/411 Merkez - ÇANKIRI / TÜRKİYE Fabrika: Dere Mah. Aşağı Ağıl Önü Mevkii Cad. No:18 PK:18700 Eldivan - ÇANKIRI / TÜRKİYE Tel: 0376 218 10 25 - Fax: 0376 218 12 26 info@megasan.com.tr - megasanmedical@yahoo.com www.megasan.com.tr MADE IN TURKEY	20...	 1984
		Ü ADI: Ü KODU:	Üretim Tarihi / / 2022	
 8 698973 920047		 Saklama Ortamı -20 °C - 60 °C  Çalışma Ortamı 5 °C - 40 °C		
SERIAL NUMBER  22/xx-00186		 Protect From Oil Yağdan Koruyunuz   		
UE-04 Revizyon No: 01 Revizyon Tarihi: 07.02.2022				

Explanations of symbols used on the Package Label for Electrical or Non-Electrical Devices;

 MEGASAN Medikal Gaz Sis. Tıbbi Alet ve Cihazlar İnş.Taah. Mad. Turizm İth. Ve İhr. San ve Tic.A.Ş. Merkez: Cumhuriyet Mah. Düvenciler Sok. Zafer İş Hanı Apt. No: 33/411 Merkez - ÇANKIRI / TÜRKİYE Fabrika: Dere Mah. Aşağı Ağıl Önü Mevkii Cad. No:18 PK:18700 Eldivan - ÇANKIRI / TÜRKİYE Tel: 0376 218 10 25 - Fax: 0376 218 12 26 info@megasan.com.tr - megasanmedical@yahoo.com www.megasan.com.tr MADE IN TURKEY	20...	Manufacturer / Company Information / Year of Manufacturing
		Approved Institution Identification Number
		Read the user manual carefully. (Operating manual should be read completely and clearly for product to be used properly throughout economic life and for preventing accident which are caused directly or indirectly from product)
 Working Environment -20 °C - 60 °C		Store and transport at temperatures between -20°C and 60°C.
 Working Environment 5 °C - 40 °C		Use ambient temperature values between 5°C - 40°C
		Anesthesia-resistant gas may be present on the unit.
		User should be careful

 Protect From Oil Yağdan Koruyunuz	When oxygen gas comes into contact with oil or other lubricants, there is a danger of combustion, explosion. Protect from oil during use, as there may be an oxygen outlet on the device
 8 698973 920047	Product Barcode Code
SERIAL NUMBER  22/xx-00186	Production Year, Product Group, serial number

Standards specified in British, German, French and American norms are Oxygen, Vacuum, Compressed air 4 and 7 bar, N2O and Waste gas discharge system.

The background colors to be used on gases and their labels are as follows According to TS EN ISO 9170-1 standard article 6.1.3 Table 2, ISO 32 and the British Compressed Gas Association Circulars.

Gas		Color	
Oxygene	O		White - RAL 9010
Vacuum	V		Yellow - RAL 1018
Air 4 Bar	H4		Black White RAL 9010 - RAL 9005
Air 7 Bar	H7		Black White RAL 9010 - RAL 9005
Nitrogen Protoxide	N2O (A)		Blue - RAL 5010
Carbon Dioxide	K		Gray - RAL 6001
Waste Gas Discharge	AGSS		Purple - RAL 3007

18. Technical Service Stations

LIST INDICATING SERVICE STATIONS	
OF THE IMPORTER/MANUFACTURER/PRODUCER COMPANY	
TITLE	MEGASAN MED. GAS. FOG. TIB. TOOLS AND DEVICES CONS. TAAH. MAD.NAK. TYPE. imp. DHR. SINGING. TRADE. Inc.
HEAD OFFICE ADDRESS	Cumhuriyet Mah. D�venciler sok. Zafer Iř Hanı Apt. No:33/411 Merkez / ankırı
Phone No	376-218 10 25
FAX	376-218 12 26
TRADE REGISTRY NUMBER	2 / 2163
Tax Office / No	613 088 4492

Name of Service	MEGASAN MED. GAS. FOG. TIB. TOOLS AND DEVICES CONS. TAAH. MAD.NAK. TYPE. imp. DHR. SINGING. TRADE. Inc.
Authorized Name Surname	HAYRETTİN ELİKTEN
Tax Office / No	ANKIRI / 613 088 4492
Phone No	376-218 10 25
HYBN No.	Jun-59
Address	Cumhuriyet Mah. D�venciler sok. Zafer Iř Hanı Apt. No:33/411 Merkez / ankırı
Province	ANKIRI

Name of Service	TEKNİKON MEDICAL C�H. AND GAS SYSTEM. SINGING. VE T�C.LTD. řT�.
Authorized Name Surname	OKAN řERİF AKMAN
Tax Office / No	OSTİM / 8360335116
Phone No	312-395 09 29
HYBN No.	Jun-04
Address	İVEDİK SANAY� B�LGESİ 645. SOK. NO:28 OSTİM
Province	ANKARA

Name of Service	BUZSAN MEDICAL COOLING CONSTRUCTION TOURISM NATURAL GAS CONTRACTING IMPORT EXPORT INDUSTRY TRADE LTD. řT�.
Authorized Name Surname	İRFAN KALKAN
Tax Office / No	HARPUT /1910537688
Phone No	424 238 71 27
HYBN No.	14.31.23 / HYB-329
Address	AKPINAR MAH. PINARLI SOK.NO:8/C
Province	ELAZIĞ

Name of Service	SERTEK TECHNICAL SYSTEMS - İZZET USLU
Authorized Name Surname	İZZET USLU
Tax Office / No	MİMARŞINAN / 8950271798
Phone No	320 52 52
HYBN No.	38 / 1323
Address	HASTANE CAD. KİRANATLI İř MERKEZİ NO:33/1
Province	KAYSERİ

Name of Service	MEDGAZ MEDICAL INDUSTRIAL MECHANICAL INSTALLATION ELECTRICAL CONSTRUCTION TAAH. SINGING. TRADE. LTD. řT�
Authorized Name Surname	�ZCAN DEMİRTAř
Tax Office / No	SETBAřI / 613 075 3619
Phone No	0224 360 04 10
HYBN No.	
Address	Değirmenli Kızık Mahallesi Teyyareci Cad. No:252/1 Yıldırım
Province	BURSA