



# Health Care & Humam Care

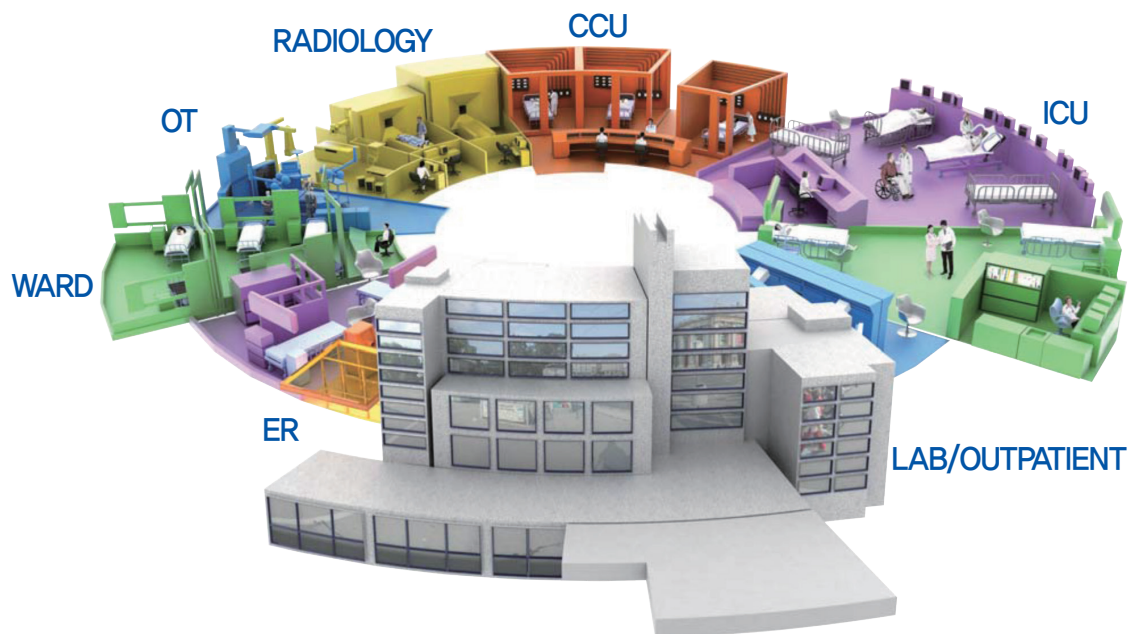
## MEDICAL GAS CENTRAL PIPING SYSTEM



# Health Care & Humam Care



# Medical Gas Central Piping System





# Medical Gas

## 아산화질소(NITROUS-OXIDE) N<sub>2</sub>O

아산화질소는 질산암모늄을 약 220℃로 가열 분해하여 얻는다.  
용도는 전신마취제, 적외선 분석계, 반도체 등으로 이용된다.  
(액체 N<sub>2</sub>O 1kg은 20℃에서 약 540L의 부피를 차지한다.)



## 산소(OXYGEN) O<sub>2</sub>

산소는 1774년에 발견됐으며 공기속에 부피로 약 21%를 차지하고 있고 무색, 무미, 무취의 가스로서 액체 상태에서는 얼은 푸른색을 띠고 있으며 대기압 상태에서 -183℃의 비등점을 갖는다.



## 질소(NITROGEN) N<sub>2</sub>

질소는 공기중에 약 80%를 차지하고 무색, 무미, 무취의 불활성 가스로서 대기압 상태에서 -196℃의 비등점을 갖는다.  
액체질소는 초저온 상태를 이용하여 작품의 급속냉동 보존, 인공수정 등에 널리 이용된다.

## 혼합가스

고순도 가스를 필요한 용도로 혼합하여 합금, 용접, 전기, 식품, 의료, 해양개발, 실험실등의 각 산업분야에서 널리 사용 되는 가스 입니다.



## 고 순도가스

단일성분의 고순도 가스 혹은 특정불순물이 일정 이하로 보증되는 가스로서 분석기의 C-ARRIER 가스, ZERO가스 등으로 사용된다.

# Medical Gas Supply Equipments

## Liquid Oxygen Storage Tank

### → Feature

- Long-term hold time due to highly efficient multi-layer insulation systems
- Economizer system
- Built-in Isolation Valve
- Built-in Vaporizer
- The Vent module has a dual safety valve and manual vent valve



## Medical Gas Manifold System

### → Type

- Auto throw / free standing
- Maximum flow : 140 Nm<sup>3</sup>/hr

### → Construction

- Cover : Steel 1.2t
- Panel : Steel 2t printed P.P sheet coating
- Frame : aluminum pipe 30×30



Medical Gas Manifold System

When service bank becomes empty, gases semi Automatically being to flow from reserve bank The pressure is analoug-indicated



Medical Gas Manifold System



# Medical Gas Supply Equipments

## Medical Air Compressor system

### → Type

- Duplex, Oilless Air-compressor System

### → Consisting

- 2-Oilless Air-compressor, 1-Receiver Tank
- 1-After Cooler, 1-Main Filter, 1-Air Dryer
- 1-Pre Filter, 1-Line Filter
- 1-Coalescer Filter, 1-Adsorbent Filter, 1-Regulator
- 1-Control Panel

### → Option

- Dual Filter Ration System



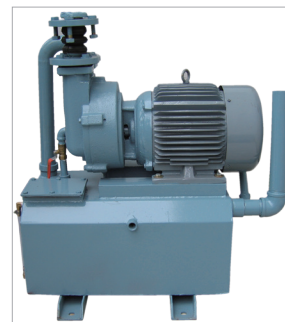
## Medical Vacuum Pump system

### → Type

- Duplex, Oil or water sealed vacuum pump

### → Consisting

- 2-vacuum pump
- 1-Receiver tank
- 1-Separator tank
- 1-Automatic water supply/drain system
- 1-Control panel
- 1-W/standard accessories



# Medical Gas Distribution Equipments

## MASTER ALARM

### ➔ Type

- Wall mounted for concealed piping

### ➔ Function

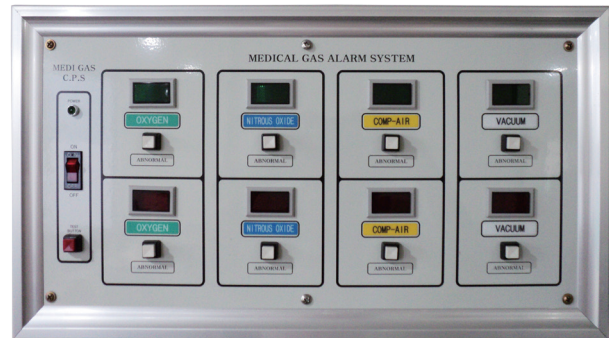
- Medical gas abnormal pressure alarm

### ➔ Construction

- Box : Steel 1.6t baked painting
- Panel : Steel 1.6t baked painting
- Electric : 100V/200V/AC, 24V DC

### ➔ Consisting of

- Push to test
- Power on lamp
- Alarm silencer
- Indication lamp
- Gauge



Master Alarm

## AREA ALARM

### ➔ Type

- Wall mounted for concealed piping

### ➔ Function

- Medical gas abnormal pressure alarm

### ➔ Construction

- Box : Steel 1.6t baked painting
- Panel : Steel 1.6t baked painting
- Electric : 100V/200V/AC, 24V DC

### ➔ Consisting of

- Push to test
- Power on lamp
- Alarm silencer
- Indication lamp
- Gauge



Area Alarm

# Medical Gas Distribution Equipments

## Semi Dulex Console System

### → Type

- Horizontal wall exposed mount

### → Consisting

- Main frame : Al profile 2,5t anodizing finished
- Panel : Al profile 2t baked painting



Semi Deluxe Console 2



Semi Deluxe Console 3



## Multi Console System

### → Type

- Horizontal wall exposed mount

### → Consisting

- Main frame : Al profile 2t anodizing finished
- Panel : Al profile 2t baked painting



Multe Console 2A



Multe Console 2B





# Medical Gas Distribution Equipments

## Electric Console System

### → Type

- Horizontal wall exposed mount

### → Consisting

- Main frame : Al profile 2t anodizing finished
- Panel : Al profile 2t baked painting



Electric Console 1



Electric Console 2

## Accessory

### → Monitor diy

### → Basket



Monitor diy



Basket

## Gallery Wall Unit

The gallery wall module combines design versatility and medical utility in a unique systems that allows the designer to create comfortable setting with easy, immediate access to medical gases and electrical services.



Gallery Wall Unit

# Medical Gas Distribution Equipments

## GENERAL WALL OUTLET (Pin-Index)

### → Type

- Wall mounted for concealed piping

### → Consisting

- Box : Steel 1,6t baked painting
- Panel : ABS Crom painting
- Stop valve : Machined brass body
- Name plate & dust cover
- Extension tube—Dia 9.52/12.70
- Each gas modular assembly



Wall Outlet 2



Wall Outlet 4

## SHUP-OFF VALVE

### → Type

- Wall mounted for concealed
- Piping with monitoring gauge

### → Consisting

- Box : Steel 1,6t baked painting
- Panel : Polycarbonate 1,0t silk painting
- Gauge : Oxygen—15kgf/cm<sup>2</sup>  
Nitrous-oxide—15kgf/cm<sup>2</sup>  
Comp.air—15kgf/cm<sup>2</sup>  
Vacuum—760mmHg  
Nitrogen—35kgf/cm<sup>2</sup>



Shup-Off Valve

# Medical Gas Distribution Equipments

## Ceiling Hose Reel

### ➔ Type

- Ceiling mounted retractable reel type

### ➔ Consisting

- Ceiling cover : color coded aluminium
- Hose : 10feet long gum rubber
- Retractable hose reel w/auto lock device
- Quick connect check valve



## Ceiling Hose Outlet

### ➔ Type

- Ceiling mounted retractable spring type Consisting
- Ceiling cover : color coded aluminium
- Hose : 6feet long gum rubber
- Retractable string or wire type
- Quick connect check valve





# Medical Gas Central Piping System

➔ Type

- ➔ Consisting

- 

→ Type

- ➔ Consisting

- 
- A photograph of a 'SURGICAL GAS CONTROL PANEL'. The panel is white with a black top section containing six analog pressure gauges. Below each gauge is a digital readout (DRO) display. The DROs are color-coded: green, blue, yellow, white, green, and black. The panel is mounted on a light-colored wall.

→ Type

- Construction

- 

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# Medical Gas Distribution Equipments

## Special Care Desk Wall System

- Match individualized requirements and meet option needs.
- DuraBility construction with AL profile and laminate panels.
- Color selections to complement your room decor.
- Available every aplocation—service outlet can be optional fix as hospital requirement.
- Fast, simple, economical installation.



## Special Care Flat Wall System

- Uncluttered appearance gives any room a neat, clean, appearance.
- Clean straight line design units available in any width or height to suit your patient service needs.
- match individualized requirements and meet optional needs.
- Economical solution for patient care.



# Medical Gas Distribution Equipments

## Ceiling Pendent

### ➔ Type

- 330° ... rotation vertical and horizontal reach

### ➔ Consisting

- Long-lasting brakes
- Durable aluminium ceiling structure

### ➔ Consisting of

- Oxygen, nitrous-oxide, air, vacuum outlet
- Evacuation outlet (option)
- Pneumatic drive control switch
- variety of movements up to 2.50m
- 360° ... rotation shelf(option)



## Ceiling Column

### ➔ Type

- Vacuum powered retractable type
- Electric power(power cylinder)
- Durable fixed position type

### ➔ Service head

- General service head
- Jumbo service head

### ➔ Construction

- Box : Steel 1,2t baked painting
- Panel : Steel 1,6t baked painting

### ➔ Consisting of

- Oxygen, nitrous-oxide, air vacuum outlet
- Evacuation outlet(option)
- Pneumatic drive control switch or electric control switch





# Patient Care Secondary Equipments

## Oxygen Flowmeter w/Humidifier

### → Features

- Solid brass body chrome plated for durability.
- Control Valve is back pressure compensated so flow accuracy is not effect by restrictions caused by humidifier, ventilators, etc.
- Unbreakable polycarbonate bottle & Provides an audible alarm humidifier.

### → Construction

- Flow range : 0~15 lpm
- Filtering : 0.1 micron
- Relief valve : 0.6kgf/cm<sup>2</sup>
- Flush flow : 70 lpm
- Use pressure : 3.5kgf/m<sup>2</sup>



Oxygen Flowmeter



Wall Suction

## Wall Suction unit—One Bottle

### → Features

- Suction Regulator with collection bottle
- Regulator vacuum range : 0~300mmHg to full line
- Change selector : Regulated/off/full line
- Unbreakable polycarbonate collection bottle 1200cc w/over-flow protector
- One touch collection bottle separation
- Easy to control low pressure suction

## Movable Suction unit

### → Construction

- Type : Movable kick type
- Consisting Of — Suction gaug : 0~760mmHG
- 8000CC collection bottle



Movable

## Wall Suction unit—Two Bottle

### → Features

- Suction Regulator with safety trap bottle & Collection bottle
- Regulator vacuum range : 0~300mmHg to full line
- Change selector : Regulated/off/full line
- Unbreakable polycarbonate safety trap bottle 300cc
- Unbreakable polycarbonate safety trap bottle 1200cc w/over-flow protector



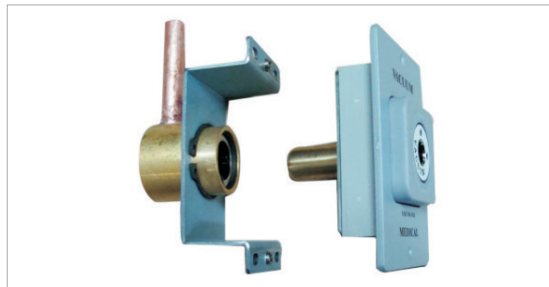
Wall Suction unit—Two Bottle

# Check Valve & Adapter Variation

## Oxygen Flowmeter w/Humidifier



Pin index type : push Check



Inlet or push Check



Pin index type : Twist type



Pin index type : Adaptor



Pin index type : Circle type



Pin index type : Adaptor (Color)



Pin index type : Twist (Y Check)



Diss type



Schrader Check