CEGA SYSTEMS
BY GREGGERSEN

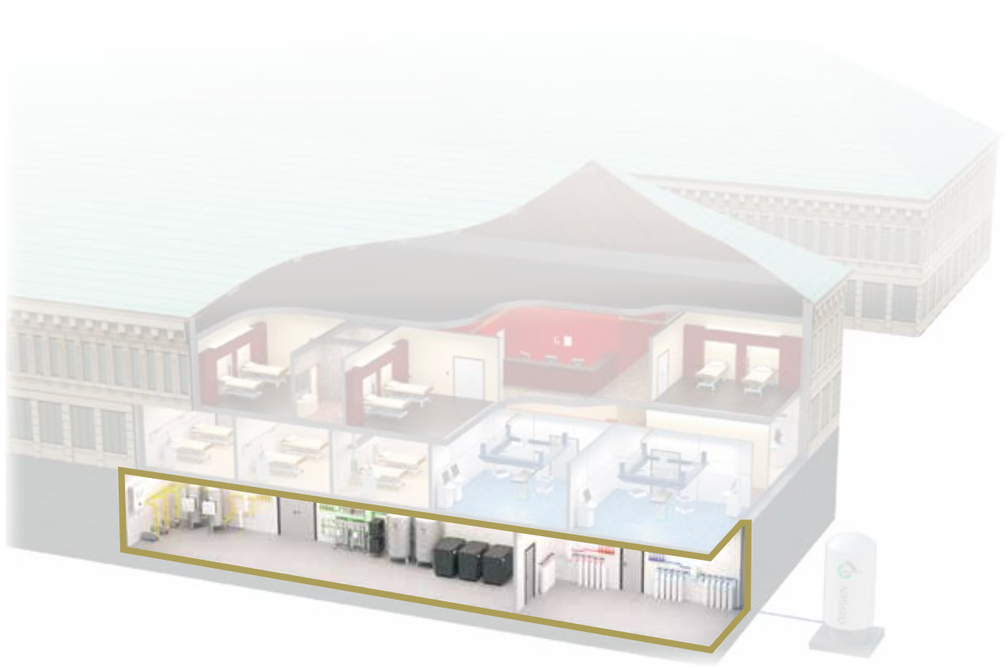
PRODUCT CATALOG
SWITCHOVER SYSTEMS

MediControl switchover system

INTRODUCTION

Care and caution are advised when handling compressed medical gases (oxygen. nitrous oxide, carbon dioxide). Specialists and reliable hardware are necessary for a gas supply system that serves for distribution in medical facilities.

The Greggersen switchover systems cover a wide spectrum of capacities (10 m^3/h to 200 m^3/h) and also ensure a high degree of operational safety and reliability.



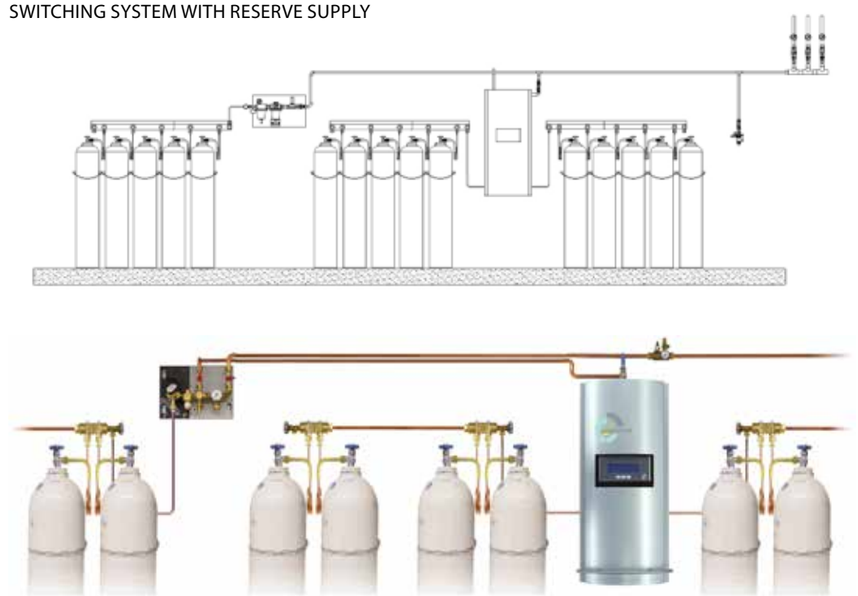
SPECIAL FEATURES OF THE GREGGERSEN CEGA SYSTEMS:

- Every gas supply source is protected with its own pressure reducing valve.
- In the event of a power failure, all valves open by means of an intelligent pressure control system that switches one source after the other.
- Pressure sensors and innovative control and display electronics ensure an optimal level of monitoring, information and control
- System 10 / 25 m^3/h entirely pneumatic, 25 / 50 / 100 m^3/h electronic and special solutions
- We have already successfully installed systems with up to 200 m^3/h throughput and control of two physically separated cylinder batteries.

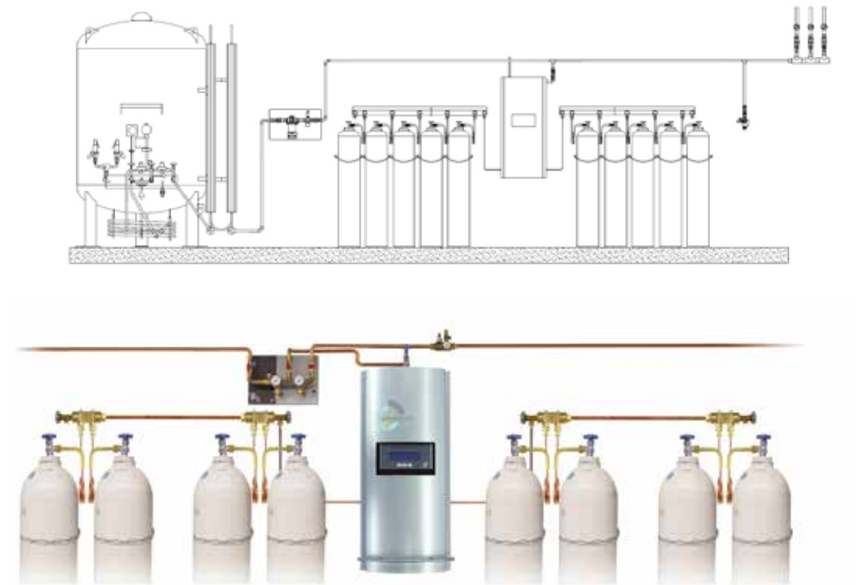
Overview

APPLICATION EXAMPLES

SWITCHING SYSTEM WITH RESERVE SUPPLY



SWITCHING SYSTEM WITH TANK SUPPLY



CEGA SWITCHOVER SYSTEMS

Electronically controlled switching system

MC 2025 / 2050 / 2100

USAGE

The MediControl central gas supply system guarantees a continuous supply of medical gases. Monitoring and control of the three supply sources is ensured with the Aeolus electronic switchover system. Extensive information is available on a large graphic display that shows both the operating state and messages in plain text.

All pressure reducing valves are duplicated, such that the supply is safeguarded even during maintenance. Adherence with the recognised rules of engineering is just as important as the durable and dependable design of all individual parts.

High flexibility in system design: Whether the main supply is via a cryogenic vessel and the system ensures a secondary and reserve supply, or is configured as a primary and secondary supply with permanently connected reserve supply - the switchover system can be easily matched to the requirements set.

DESIGN

- Microprocessor-controlled gas supply system
- LCD display specifying the operating state and service messages in plain text
- Sensor pressure monitoring
- 2-stage pressure reduction; 2nd stage duplicated
- Pneumatic priority switching in the event of power supply failure
- Protection of the system by means of a hood with viewing window

TECHNICAL DATA

Dimensions:	MC 2025: 380 x 840 x 300 mm (WxHxD) MC 2050: 480 x 1100 x 330 mm (WxHxD) MC 2100: 480 x 1100 x 330 mm (WxHxD)
Inlet pressure max.:	20,000 kPa
Outlet pressure:	100-800 kPa (500 kPa standard)
Throughput:	MC 2025: 25 m^3/h | MC 2050: 50 m^3/h | MC 2100: 100 m^3/h
Inlet:	G ¾“
Outlet:	copper pipe Ø 22 mm
Weight:	MC 2025: 35 kg | MC 2050: 45 kg | MC 2100: 48 kg
Operating temperature:	+10° to +40°C
Supply voltage:	100-240 V AC, 50-60 Hz

MC 2025E, electronic, 2 cylinder batteries	326.025
MC 2025E, electronic, 2 cylinder batteries	326.050
MC 2100E, electronic, 2 cylinder batteries	326.100
MC 2025R, electronic, 3 cylinder batteries	326.026
MC 2050R, electronic, 3 cylinder batteries	326.052
MC 2100R, electronic, 3 cylinder batteries	326.102
MC 2050T, electronic, 2 cylinder batteries, incl. tank panel	326.051
MC 2100T, electronic, 2 cylinder batteries, incl. tank panel	326.101

Pneumatically operated switching system

MC 2025P / HU 10

USAGE

These entirely pneumatic switchover systems have been especially developed for smaller facilities. A pressure difference in the first pressure stage ensures that firstly one supply source is consumed and then the second source. The pressure reducing valves are duplicated, such that the supply is safeguarded even during maintenance. Adherence with the recognised rules of engineering is just as important as the durable and dependable design of all individual parts.

DESIGN

- Pneumatically controlled gas supply system
- Pressure monitoring via pickups
- 2-stage pressure reduction; 2nd stage duplicated
- Protection of the system by means of a hood with viewing window

TECHNICAL DATA

Dimensions:	MC 2025P: 360 x 780 x 300 mm (WxHxD) HU 10: 330 x 480 x 300 mm (WxHxD)
Inlet pressure max:	20,000 kPa
Outlet pressure:	100-800 kPa (500 kPa standard)
Throughput:	HU 10: 10 m^3/h | MC 2025P: 25 m^3/h
Inlet:	G ¾“
Outlet:	copper pipe Ø 22 mm
Weight:	HU 10: 20 kg | MC 2025P: 25 kg
Operating temperature:	+10° to +40° C

MC 2025P, pneumatic, 2 cylinder batteries	327.025
HU 10, pneumatically controlled switchover system	325.104

Operating signal

FOR PNEUMATIC SYSTEMS

USAGE

Operating signals have to be provided in accordance with DIN EN ISO 7396–1. The operational alarm monitors the primary, secondary and reserve supply and indicates the “Empty message” on an optical display. The distribution network pressure is monitored (operational emergency alarm) at the same time.

DESIGN

- Optical displays of the operational states in the supply centre
- Forwarding via potential-free contacts to the building/central control system

TECHNICAL DATA

Supply voltage: 100-240 V AC, 50-60 Hz

Operating signal for pneumatic systems (main warning)	903.682

HP - manifold

1 - 10-FOLD

USAGE

To connect one or more individual gas cylinders to a cylinder battery. Every individual connection is equipped with a non-return valve, which prevents a return flow or running dry. A main shut-off valve allows separation of the entire side from the supply and the manifold can be depressurised via a bleed valve.

All components are high-pressure resistant (BAM tested) and thus withstand the operating pressure of 20,000 kPa (200 bar). Two cylinders in each case are connected as single or double versions via a distribution bend to the manifold.

DESIGN

- High pressure manifold 1 to 10-fold
- Individual valves per connection
- Main shut-off valve for the entire manifold
- Bleed valve with solder connection

TECHNICAL DATA

Inlet pressure max:	20,000 kPa
Operating temperature:	+10° to +40°C
Separation between cylinders:	300 mm

HP - manifold, 1-fold, complete	327.301
HP - manifold, 2-fold, complete	900.522
HP - manifold, 3-fold, complete	900.523
HP - manifold, 4-fold, complete	900.524
HP - manifold, 5-fold, complete	900.525
HP - manifold, 6-fold, complete	900.526
HP - manifold, 7-fold, complete	900.527
HP - manifold, 8-fold, complete	900.528
HP - manifold, 9-fold, complete	900.529
HP - manifold, 10-fold, complete	900.530

HP - distribution bend

MANIFOLD ACCESSORIES

USAGE

For the high pressure connection between the cylinder valve and manifold. Version with compensating spiral, as manual connection or hexagonal nut, in a single or double version.

TECHNICAL DATA

Operating pressure max.:	20,000 kPa
Inlet:	gas-specific
Outlet:	gas-specific

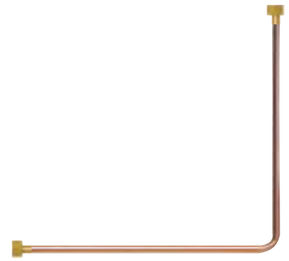
HP - distribution bend, manual connection, O_2, single	325.414
HP - distribution bend, manual connection, O_2, double	324.414
HP - distribution bend, manual connection, AIR, single	325.524
HP - distribution bend, manual connection, AIR, double	324.514
HP - distribution bend, manual connection, N2O, single	325.415
HP - distribution bend, manual connection, CO2, single	325.426
Other gases, connections and norms	on request

HP - connecting pipe

MANIFOLD ACCESSORIES

USAGE

To connect the manifold with the switchover system.



TECHNICAL DATA

Operating pressure max.	20,000 kPa (200 bar)
Inlet:	G ¾“
Outlet:	G ¾“

HP - connecting pipe for 2x manifold	327.304
HP - connecting pipe, manifold with MC 2025 E / P	324.010
HP - connecting pipe, manifold with MC 2100 / 2050 E / P	324.001
HP - connecting pipe, manifold 1-fold with MC 2025 E / P	324.015
HP - connecting pipe, manifold with reserve panel	324.013
HP - connecting pipe, manifold 1-fold with HU 10	325.732
HP - connecting pipe, manifold with HU 10	325.733
HP - connecting pipe, manifold 1-fold with reserve panel	324.018

Ball valves

MEDICAL BALL VALVES

USAGE

Shut-off units are frequently used in medical piping: A shut-off valve is inserted wherever sections of the piping system have to be separated for maintenance, repair or planned future expansions. The type 33 ball valve can be used for all medical gases (except vacuum). The winged tap clearly shows the opened and closed positions. The winged tap is locked in its position, so inadvertent opening or closing is ruled out.

DESIGN

- Nickel-plated brass housing with chrome-plated ball
- Ball seal made of PTFE
- Steel tap with plastic coating
- Lockable hand lever
- Oil and grease-free version

TECHNICAL DATA

DN 6 - LW 8 / PN 65 – G ¼“	for 8 x 1 mm Cu pipe
DN 10 / PN 65 – G ⅜“	for 12 x 1 mm Cu pipe
DN 15 / PN 65 – G ½“	for 15 x 1 mm Cu pipe
DN 20 / PN 40 – G ¾“	for 22 x 1 mm Cu pipe
DN 25 / PN 40 – G 1“	for 28 x 1 mm Cu pipe
DN 32 / PN 30 – G 1¼“	for 35 x 1.5 mm Cu pipe
DN 40 / PN 30 – G 1½“	for 42 x 1.5 mm Cu pipe
DN 50 / PN 30 – G 2“	for 54 x 2 mm Cu pipe

BALL VALVES WITH SCREW CONNECTIONS

Brass ball valve type 33, 1/4“- DN 6 - 8 x 1 with screw connection	102.418
Brass ball valve type 33, 3/8“- DN 10 - 12 x 1 with screw connection	102.419
Brass ball valve type 33, 1/2“- DN 15 - 15 x 1 with screw connection	102.420
Brass ball valve type 33, 3/4“- DN 20 - 22 x 1 with screw connection	102.421
Brass ball valve type 33, 1“- DN 25 - 28 x 1.5 with screw connection	102.422
Brass ball valve type 33, 1¼“- DN 32 - 35 x 1.5 with screw connection	102.423
Brass ball valve type 33, 1½“- DN 40 - 42 x 1.5 with screw connection	102.424
Brass ball valve type 33, 2“- DN 50 - 54 x 2 with screw connection	102.425

BALL VALVES WITHOUT SCREW CONNECTIONS

Brass ball valve type 33, 1/4“- DN 6 - 8 x 1 without screw connection	102.305
Brass ball valve type 33, 3/8“- DN 10 - 12 x 1 without screw connection	102.395
Brass ball valve type 33, 1/2“- DN 15 - 15 x 1 without screw connection	102.414
Brass ball valve type 33, 3/4“- DN 20 - 22 x 1 without screw connection	102.145
Brass ball valve type 33, 1“- DN 25 - 28 x 1.5 without screw connection	102.416
Brass ball valve type 33, 1¼“- DN 32 - 35 x 1.5 without screw connection	102.377
Brass ball valve type 33, 1½“- DN 40 - 42 x 1.5 without screw connection	102.417
Brass ball valve type 33, 2“- DN 50 - 54 x 2 without screw connection	102.426

Service portfolio

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