

GEMÜ®

VALVES, MEASUREMENT AND
CONTROL SYSTEMS

Plastic Multi-Port Valve Blocks

Lightweight – Space-saving – Multipurpose





Wide-ranging application in industrial processes

GEMÜ products are in operation worldwide in the mechanical engineering, plant engineering and construction industries, the car industry, water treatment and sewage technology, power stations, iron and steel works, the paper industry, petrochemicals, basic and fine chemical industries, mining and metal extraction, the sugar industry and many other industrial sectors. Industrial applications subject valve bodies to a particularly varied range of stresses, which is why GEMÜ valve designs are based on the expertise gained during decades of application experience. The specialized production processes and the precise geometric suitability of the material transitions make GEMÜ valve bodies a lasting, highly efficient application solution.

Customised solutions for your project business

GEMÜ provides the optimal solution from a single source.

As a system supplier of isolation, actuator and control technology, we can respond very flexibly to your individual project-specific needs.

Our worldwide sales network provides fast reaction times, customer oriented service and a committed project management team.



Production of plastic multi-port valve blocks in Rotkreuz (CH)

Multi-port valves *save space and mounting time*



Lightweight, taking up less space, quick to fit and multipurpose – these requirements are becoming increasingly important for system components. Complex control of liquids and gases are generally carried out by means of numerous individual valves. These are connected to one another by similar numbers of fittings and piping. But this takes up a lot of space and assembly is time-consuming because of the much higher number of individual parts. Also, every assembly point and pipe connection is a potential leak, which increases the safety risk.

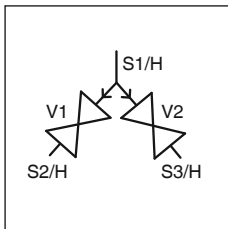
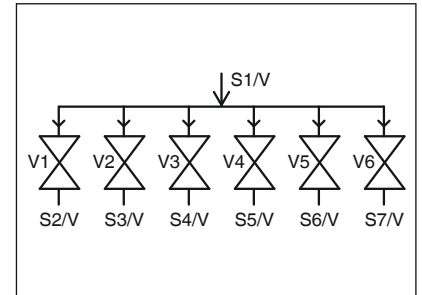
Compact plastic multi-port valve blocks are the ideal components here, as they can perform various functions while saving space. Our experience with producing thousands of versions within the pharmaceutical industry is now being transferred to plastic multi-port valve blocks for other industrial sectors. Today we are the market leader world-wide for multi-port valve blocks for the pharmaceutical industry. We also offer multi-port valve solutions made of the most varied plastic materials for wet processes in the semiconductor industry and solar cell production as well as for controlling cleaning media and chemicals.



Intelligent compact system components



6-way manifold



2-way manifold



Multi-port valves or multi-port valve blocks unite a variety of functions in the smallest of spaces thanks to their individual design, such as:

- *mixing*
- *dividing*
- *diverting*
- *draining*
- *feeding*

They can also fulfil safety functions, double shut-off (double block and bleed), cross connections and control functions. These individual functions serve very specific purposes in individual situations, such as the taking of samples, the distribution of chemicals, the connection of cleaning media (CIP) and ensuring a minimum flow rate. There are also numerous more complex functions in connection with process automation, for example the integration of pressure or temperature sensors. Intelligently designed, multi-port valve blocks can be developed into compact system components with a high degree of functionality.



3-way block with motorized actuators and threaded/solvent cement sockets

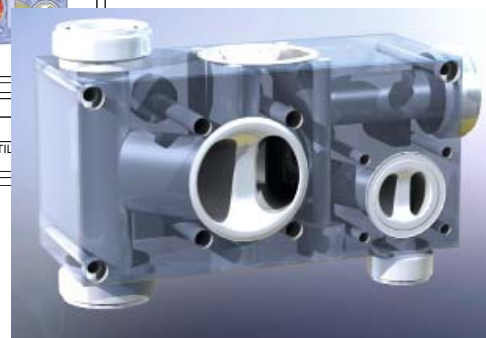
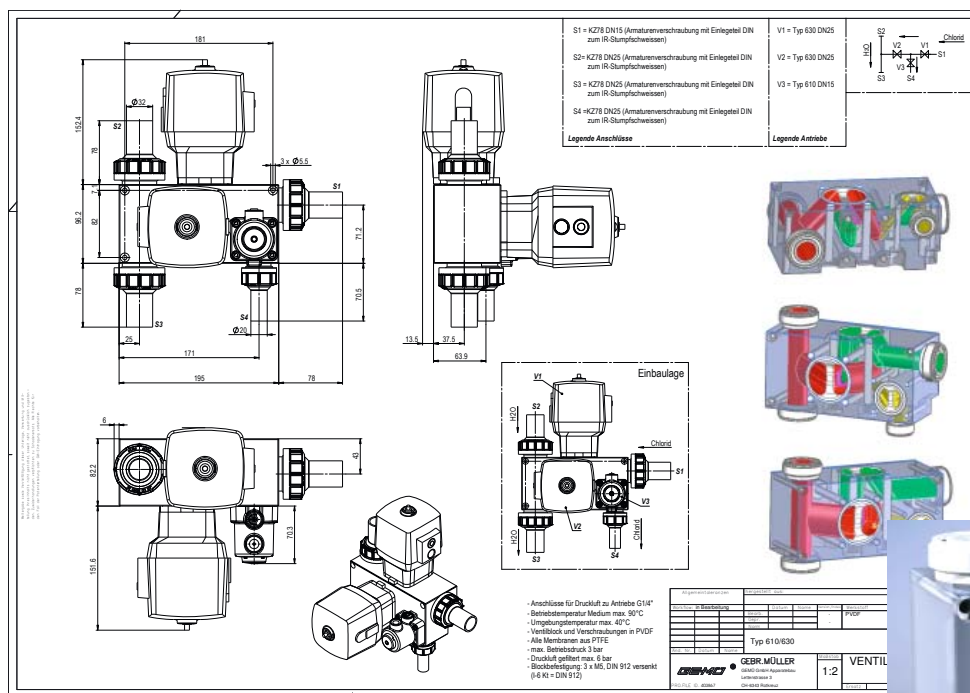
Advantages of multi-port valves

- Individual, customised layouts and very flexible design
- Very compact
- Fewer fittings, welds or solvent cemented joints
→ fewer potential leakage points
- Lower assembly and installation costs
- Low hold-up volume, smaller wetted area
- Operators and diaphragms/seals from the proven GEMÜ modular system
- Produced from a single block of material (standard materials PVC-U, PP, PP natural, PVDF and PEEK); further materials on request
- Standard connections: threaded sockets, solvent cement spigots, butt weld spigots, union ends and flanges



Block valve unit in production plant (Singulus Stangl Solar) for CIS cells

Engineering capability



Solutions are developed together with the customer

GEMÜ supports its customers at the planning phase with ideas and initial drafts. The drafts are laid out for design purposes in the 3D CAD system, agreed in close cooperation with the customer and finally processed in a state of the art efficient machining centre. Every day, our Design Centre turns out new customised block designs. Whatever you envisage or we work out together with you becomes reality at GEMÜ.

Time and cost optimized

The bodies of plastic multi-port valves are made as standard of PVC-U, PP, PP natural, PVDF, PEEK and PTFE but designs are also possible using other materials. Multi-port valve blocks are generally produced by machining from a solid block of plastic material. In the case of larger quantities, GEMÜ develops individual solutions together with the customer based on an injection moulding process. This leads to substantially lower

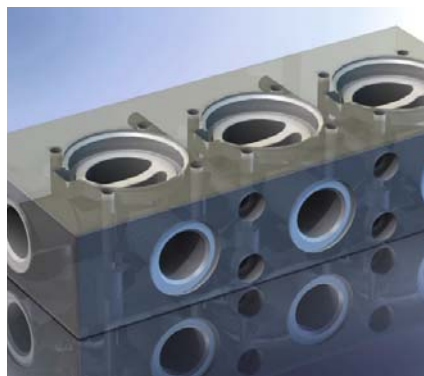
unit costs. Of course we also develop and manufacture the moulding tools for this ourselves. We therefore have control over the whole process, which is fast, flexible and in line with our high quality requirements.



Planning and partnership



3-way block in PVC with union ends and actuators type GEMÜ 600



Block with threaded connections



4-way block in PTFE with flare connections, pneumatic actuators type GEMÜ C50 and GEMÜ 1234 electrical position indicators



7-way manifold in PVC-U, with hose connectors, pneumatic actuators GEMÜ 630

Good planning is critical in valve design. Errors in the planning of production plant can result in substantial consequential expense. Delays and extra costs due to problems during the process, late commissioning, contaminated batches, later modifications to the plant are just a few of the examples in favour of precise planning. Implementing complex process sequences requires a varied range of compact valve designs. We place great emphasis on ensuring that our customers get the optimum block for their specific application and not any standard solution from the catalogue. A number of aspects are considered when designing and arranging M-blocks. Top priority is given to the safety of applications and processes in the system in which the block is to be integrated. Essential specifications include the function of the block, the number, dimensions and function of the pipe connections, the number and size of the valve seats, the installation position and draining direction of the block, the space requirement, the type and function of the operators and the type of material. In order to facilitate this we have developed a specification sheet which serves as a basis for discussing your requirements.

Please give this specification sheet to your GEMÜ contact or send it directly to the Plastics Department in Switzerland (plastic@gemu.de).

1. Enter the operating conditions and desired materials.
2. What function should the multi-port valve fulfil?
3. Draw a pictogram and make a sketch in the specification.
You can of course use the examples shown in this brochure as a guide.
4. Label all connection types with S1, S2, ...
5. Assign the necessary features to every connection in the table and add explanatory remarks where necessary.
6. Specify the necessary operator, type and control function for every connection.
7. For extra remarks and descriptions, simply use an additional sheet.

Specification sheet – Plastic multi-port valve

Not for high purity applications. Please use specification sheet „Block valve PC 50“.

Please complete this form and return it to your nearest GEMÜ office or to the address listed below!

Customer: _____

Application: _____

Medium: _____

Medium operating pressure: min: _____ norm: _____ max: _____ bar

Medium temperature: min: _____ norm: _____ max: _____ °C

Ambient temperature: min: _____ norm: _____ max: _____ °C

Max. operating pressure at max. medium temperature: _____ bar

Material - Multi-port valve:

PVC-U, grey (Code 1) ☐

PP-H, grey (Code G5) ☐

PVDF (Code 20) ☐

Other _____

Material - Seal:

EPDM (Code 14) ☐

NBR (Code 2) ☐

FPM (Code 4) ☐

PTFE (Code 52) ☐

Other _____

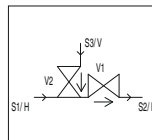
Certificates: _____

Quantity: _____

Basic price: _____

Connection + Operator:

Example:



Please draw functional diagram.

Note: Please observe correspondence of table and functional diagram.

Valve seat: V1, V2, ...

Spigot: S1, S2, ...

Preferred mounting position: Horizontal/Vertical

Flow direction (medium):

Valve seat:

Spigot	Connection		Valve seat	Operator		Others
Spigot no.	DN	Code	Seat no.	Operator type	Control function	Comment / accessories
S1			V1			
S2			V2			
S3			V3			
S4			V4			
S5			V5			
S6			V6			
S7			V7			
S8			V8			
S9			V9			
S10			V10			
S11			V11			
S12			V12			

The technical details of each enquiry will be checked by GEMÜ.

Contact (GEMÜ): _____

Customer: _____

Department: _____

Address: _____

Phone: _____ e-mail: _____

Comment:

GEMÜ production and sales locations worldwide

AFRICA

GEMÜ Valves Africa Pty. Ltd
Phone: +27(0)11 462 7795
Fax: +27(0)11 462 4226
office@gemue.co.za

AUSTRALIA

GEMÜ Australia Pty. Ltd
Phone: +61-2-43 23 44 96
mail@gemu.com.au

AUSTRIA

GEMÜ GmbH
Phone: +43 22-36 30 43 45-0
Fax: +43 22-36 30 43 45-31
info@gemue.at

BELGIUM

GEMÜ Valves bvba/sprl
Phone: +32 2 702 09 00
Fax: +32 2 705 55 03
info@gemue.be

BOSNIA/HERCEGOVINA

ALTERA d.o.o.
Phone: +387 51 434 311
Fax: +387 51 434 311
altera@blic.net

BRAZIL / SOUTH AMERICA

GEMÜ Indústria de Produtos
Plásticos e Metalúrgicos Ltda.
Phone: +55-41-33 82 24 25
Fax: +55-41-33 82 35 31
gemu@gemue.com.br

BULGARIA

GEMÜ GmbH
Phone: +43-22-36 30 43 45-0
Fax: +43 22-36 30 43 45-31
info@gemue.at

CANADA

GEMÜ Valves Inc.
Phone: +1-678-5 53 34 00
Fax: +1-404-3 44 93 50
info@gemu.com

CROATIA

STRIX d.o.o.
Phone: +38 51 23 70 381
Fax: +38 51 23 70 675
strix@zg-t-com.hr

CHINA

GEMÜ Valves (Shanghai)
Co., Ltd
Phone: +86-21-64 42 65 52
Fax: +86-21-64 89 18 85
info@gemue.com.cn

CZECH REPUBLIC

Fluidtechnik Bohemia s.r.o.
627 00 Brno
Phone: +420 548 213 233-5
Fax: +420 548 213 238
brno@fluidbohemia.cz

DENMARK

GEMÜ ApS
Phone: +45 70 222 516
Fax: +45 70 222 518
info@gemue.dk

EGYPT

Noaman Engineering Co.
Phone: +20-2-33 47 21 57
Fax: +20-2-33 03 18 79

ESTONIA/LATVIA

UAB "Biotech"
Phone: +37 85 270 9055
Fax: +37 85 270 9056
info@biotech.lt

FINLAND

Gemü Oy
Phone: +35-89-82-54-14-0
Fax: +35-89-82-54-14-13
orders@gemue.fi

FRANCE

GEMÜ S.A.S
Phone: +33-3 88 48 21 00
Fax: +33-3 88 49 12 49
info@gemu.fr

GERMANY

GEMÜ Gebr. Müller
GmbH & Co. KG
Phone: +49-79 40-12 30
Fax: +49-79 40-12 31 92 (Domestic)
Fax: +49-79 40-12 32 24 (Export)
info@gemue.de

GREAT BRITAIN / UK

GEMÜ Valves Ltd.
Phone: +44-19 25-82 40 44
Fax: +44-19 25-82 80 02
info@gemu.co.uk

GREECE

A. Stamopoulos Industrial Products
Phone: +30-210-7798 663
Fax: +30-210-7473 359
astamop@otenet.gr

GUATEMALA

Proyect, Guatemala S.A.
Phone: +502 2429-0202
Fax: +502 2476-7439
guatemala@grupoproyect.com

HONG KONG

GEMÜ Valves (Shanghai)
Co., Ltd.
Phone: +86-21-64 42 65 52
Fax: +86-21-64 89 18 85
info@gemue.com.cn

HUNGARY

MULTIVALVE Kft.
Phone: +36 1306 4491
Fax: +36 1306 4491
iroda@multivalve.hu

INDIA

GEMÜ India
Representative Office
Phone: +91-79-64505560
sales@gemu.in

INDONESIA

Gemu Valves Pte Ltd
(Indonesia Representative Office)
Phone: +62 (21) - 3681 2226
Fax: +62 (21) - 6231 0035
info@gemu.co.id

IRAN

SINARAD Kala Co., Ltd.
Phone: +98-21- 22096277,
22095187
Fax: +98-21-22096811
GEMU@sinarad.com

IRELAND

Gemu Aseptic Diaphragm Valves
Aseptek Limited
Phone: +353 63 81560
Fax: +353 63 89821
info@aseptek.ie

ISRAEL

Treitel
Chemical Engineering Ltd.
Phone: +972-3-9 78 77 77
Fax: +972-3-9 23 29 28
gemu@treitel.co.il

ITALY

GEMÜ S.r.l.
Phone: +39-02-40044080
Fax: +39-02-40044081
info@gemue.it

JAPAN

Koyo Suntech Co., Ltd.
Phone: +81-52-881-7193
Fax: +81-52-881-7197
info@koyo-suntech.jp

LITHUANIA

UAB BIOTECHA
Phone: +370 5 270 90 55
Fax: +370 5 270 90 56
virginijus.kalvinskis@biotech.lt

MACEDONIA

Eurocons Group d.o.o.
Phone: +381 13 801 460
Fax: +381 63 394 790
borko@eurocons.co.yu

MALAYSIA

GEMU VALVES PTE LTD
(Malaysia Representative Office)
Phone: +(603)- 7832 7640
Fax: +(603)- 7832 7649
info@gemu.com.sg

NETHERLANDS

Inrada Group B.V.
Phone: +31-1 02 08 07 00
Fax: +31-1 02 08 07 99
inrada@inrada.com

NEW ZEALAND

GEMÜ Australia Pty.
Phone: +61-2-43-23 44 93
Fax: +61-2-43-23 44 96
mail@gemu.com.au

PHILIPPINES

GEMÜ Valves PTE. LTD.
Phone: +65-65 62 76 40
Fax: +65-65 62 76 49
info@gemu.com.sg

POLAND

AFT Sp. Z. o.o.
Phone: +48-61-8 20 51 45
Fax: +48-61-8 20 69 59
aft.poznan@aft.pl

PORTUGAL

Contimetra-Instrumentos Industriais,
Lda
Phone: +351-21-4 20 39 00
Fax: +351-21-4 20 39 01
contimetra@contimetra.com

ROMANIA

String S.R.L. Romania
Phone: +40 238 72 62 80
Fax: +40 238 71 58 00
info@string.ro

RUSSIA

OOO „GEMÜ GmbH“
Phone: +7 495 980 26 56
Fax: +7 495 980 26 56
info@gemue.ru

SERBIA

Eurocons Group d.o.o.
Phone: +381 13 801 460
Fax: +381 13 837 250
info@eurocons.rs

SINGAPORE

GEMÜ Valves PTE. LTD.
Phone: +65-65 62 76 40
Fax: +65-65 62 76 49
info@gemu.com.sg

SLOVAKIA

EURO-VALVE s.r.o.
Phone: +421 31 705 5007
Fax: +421 31 705 5007
euro-valve@euro-valve.com

SLOVENIA

*General Industry, Water
Treatment,
Plastic Piping Systems*
Strix Inziniring d.o.o.
Phone: +386 1 54 66 050
Fax: +386 1 54 66 058
info@strix-inz.si

Pharma, Biotech, Food

Ipros d.o.o.
Phone: +386 1 200 26 20
Fax: +386 1 423 18 24
ipros@ipros.si

SOUTH KOREA

JID Corporation Co. Ltd.
Phone: +82-2-326-5545
Fax: +82-2-326-5549
master@jidcorp.com

SPAIN

ELION, S.A.
Phone: +34-9-32 982 000
Fax: +34-9-34 311 800
elion@elion.es

SWEDEN

GEMÜ Armatur AB
Phone: +46-31-99 65 00
Fax: +46-31-99 65 20
order@gemu.se

SWITZERLAND

GEMÜ GmbH
Phone: +41-41-7 99 05 05
Fax: +41-41-7 99 05 85
info@gemue.ch

TAIWAN

GEMUE Taiwan
Representative Office
Phone: +886-3-3 56 68 50
Fax: +886-3-3 56 68 45
gemu.tw@msa.hinet.net

THAILAND

GEMÜ Valves PTE. LTD.
Phone: +65-65 62 76 40
Fax: +65-65 62 76 49
info@gemu.com.sg

TURKEY

Durko Çevre Enerji
Phone: +90 216 402 20 00
Fax: +90 216 402 20 10
durko@durkocevre.com.tr

UAE + MIDDLE EAST

GEMU Middle East FZCO
Phone: +971-4-88 60 125
Fax: +971-4-88 60 124
info@gemue.ae

UKRAINE

CSC Automation
Phone: +380 (44) 494 33 55
Fax: +380 (44) 494 33 66
csc-a@csc-a.kiev.ua

UNITED STATES

GEMÜ Valves Inc.
Phone: +1-678-5 53 34 00
Fax: +1-404-3 44 93 50
info@gemu.com

 GEMÜ production location

 GEMÜ subsidiary



GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG
Fritz-Müller-Straße 6-8 · D-74653 Ingelfingen-Criesbach
Phone +49 (0)7940 123-0 · info@gemue.de

www.gemu-group.com