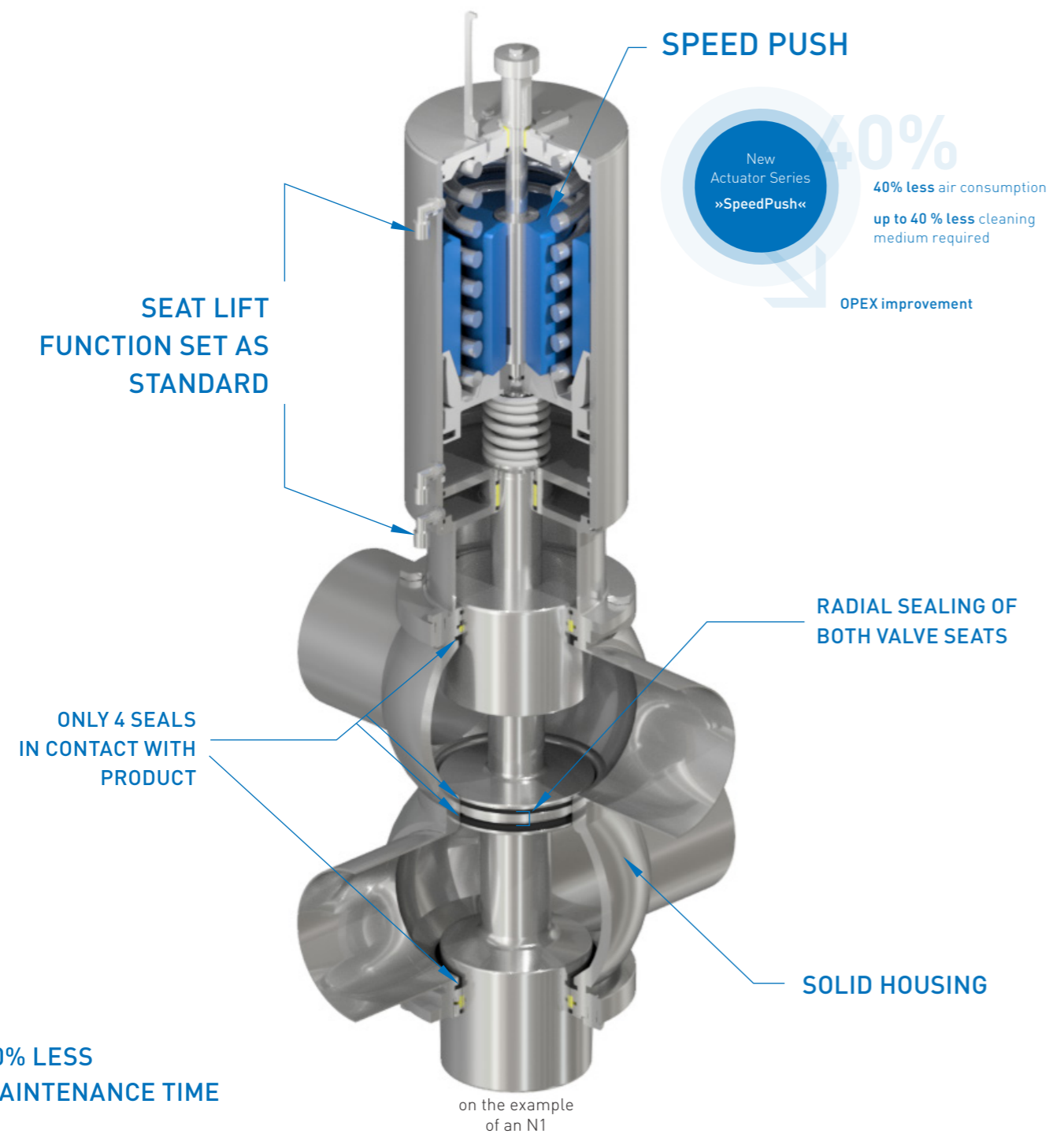


For an easy
maintenance and
higher process safety.

HYGIENIC MIX PROOF VALVES

We keep it simple and safe.



50% LESS MAINTENANCE TIME

on the example of an N1

ADVANTAGES FOR YOU AND YOUR PROCESS

ABSOLUTE PRODUCT SAFETY

- / technical vacuum safe
- / balanced valve disks
- / radial sealing of both valve seats -> a water hammer absorber is not required!
- / no roll effect, no product is getting trapped in the o-ring groove
- / Approval of type test according to „Kieler Richtlinie“

SERVICEABILITY

- / exchange of gaskets without special tools
- / reduced risk during assembly
- / service possible without air supply (except for N2 and N32)
- / low requirement of air supply

EFFICIENCY

- / standard o-ring gaskets
- / standard actuator with 3 seat lift functions
- / low number of gaskets, fast maintenance
- / low water consumption, e.g. Type N1 DN 65 Kv-value for cleaning: 1,4 m³/h (6,16 gpm)
- / pressure drop: 0 to 0,05 bar (0 to 0,725 psi)

PRODUCT OVERVIEW Hygienic Mix Proof Valves

- Page 4 Hygienic Mix Proof Valves N1
- Page 5 Hygienic PMO Mix Proof Valves N2
- Page 6 Hygienic Mix Proof Change Over Valves N3
- Page 7 Hygienic Double Seal Mix Proof Valves N4
- Page 8 Hygienic Mix Proof Tank Outlet Valves N5
- Page 9 Hygienic Mix Proof Tank Outlet Change Over Valves N9
- Page 10 Technical Data
- Page 11 Rieger worldwide

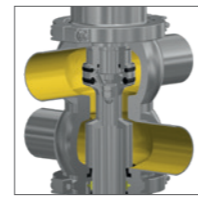
Rieger Hygienic Mix Proof Valves Comparison

TYPE	N1	N1.1	N1.2	N1.3	N1.5	N2	N3	N32	N4	N5	N9
Switching with no product loss (leak-free)	●	●	●	●	●	●	●	●	●	●	●
Leakage space cleaned during cleaning by lifting stroke function	●	○	●	●	●	●	●	●	●	●	●
Lower balancer cleaned via external cleaning chamber	○	○	●	○	○	○	○	○	○	○	○
Leakage space cleaned via external rinsing port	○	●	○	○	●	○	○	○	○	○	○
Sterile chambers (sterilizable and rinsable) in upper and lower balancer section	○	○	○	●	○	○	○	○	○	○	○
One-piece valve body	●	●	●	●	●	●	○	○	●	●	●
metallic stop	○	○	○	○	○	●	○	●	○	○	○
piggable in lower line	○	○	○	○	○	○	○	○	●	○	○
service without air supply possible	●	●	●	●	●	○	●	○	●	●	●

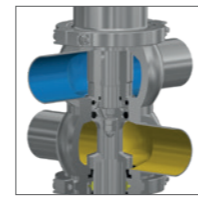


You are interested in the technology?
Scan QR Code to watch the video!

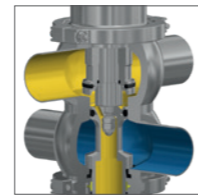
Open Position



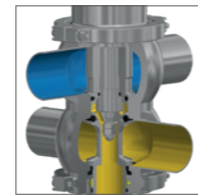
Closed Position



Upper Seat Lift



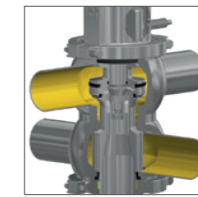
Lower Seat Lift



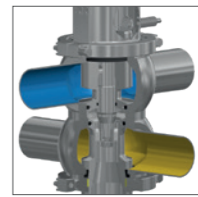
PMO
(=Pasteurized Milk Ordinance)



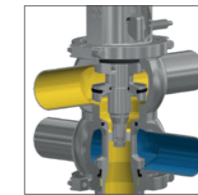
Open Position



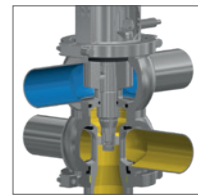
Closed Position



Upper Seat Lift



Lower Seat Lift



- / one-piece solid valve body
- / no welding distortion
- / water hammer safe up to 30 bar (435 psi)
- / both valve disks are balanced
- / low control air consumption
- / light: DN 100 = 4" only 35 kg
- / standard actuator with 3 lift functions (open, upper seat lift, lower seat lift)

- / by lifting of both disks easy cleaning
- / service possible without air supply
- / valve seat removable from the top
- / radial sealing of both valve seats
- / only 4 gaskets in the product area
- / maintenance without special tools
- / stainless steel contact with product 316L

- / inner surface Ra_s 0,8 µm (standard)
- / also available in 3-A version

Dimensions:
/ DN 25 – DN 200
/ 1" – 8"

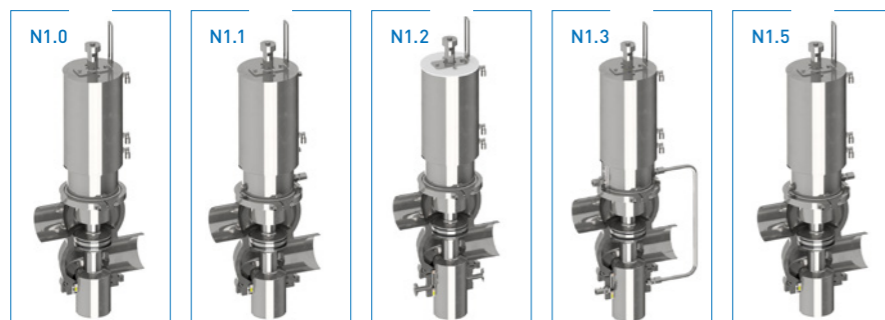
- / one-piece solid valve body
- / no welding distortion
- / water hammer safe up to 30 bar (435 psi)
- / both valve disks are balanced
- / low control air consumption
- / standard actuator with 3 lift functions (open, upper seat lift, lower seat lift)

- / by lifting of both disks easy cleaning
- / valve seat removable from the top
- / radial sealing of both valve seats
- / only 4 gaskets in the product area
- / maintenance without special tools
- / stainless steel contact with product 316L
- / inner surface Ra_s 0,8 µm (standard)

- / also available in 3-A version
- / reduced body configurations available (see Type 200 and Type 150 of the N1 on page 4)

Dimensions:
/ DN 40 – DN 125
/ 1,5" – 5"

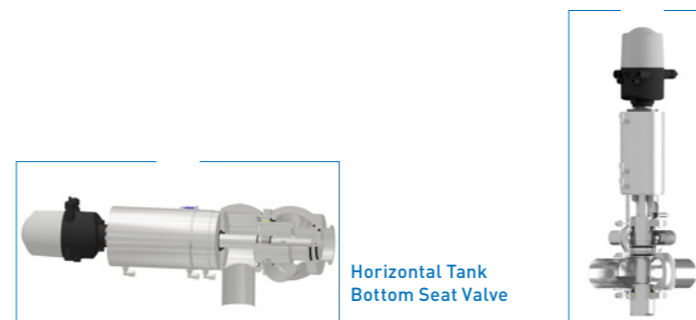
VERSIONS OF N1



For additional ports and/or other port configurations than standard please specify ports with letters. Port configurations in 360° possible.

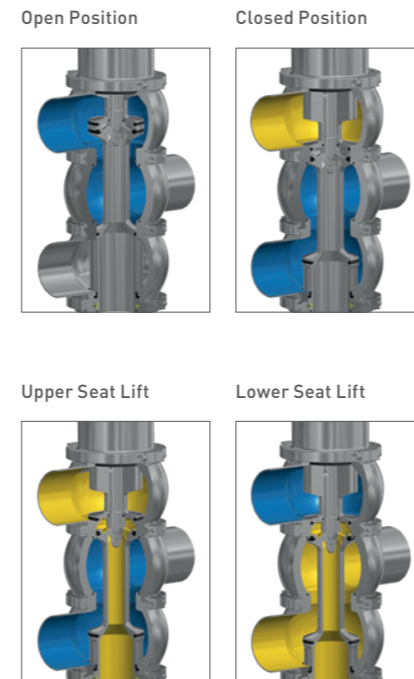


VERSIONS OF N2



For additional ports and/or other port configurations than standard please specify ports with letters. Port configurations in 360° possible.





- / one-piece solid valve body
- / no welding distortion
- / water hammer safe up to 30 bar (435 psi)
- / both valve disks are balanced
- / low control air consumption
- / light: DN 100 = 4" only 35 kg
- / standard actuator with 3 lift functions (open, upper seat lift, lower seat lift)

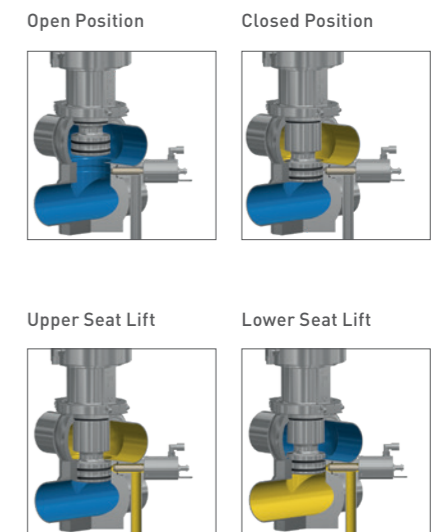
- / by lifting of both disks easy cleaning
- / service possible without air supply
- / valve seat removable from the top
- / radial sealing of both valve seats
- / only 5 gaskets in the product area
- / maintenance without special tools
- / stainless steel contact with product 316L

- / inner surface Ra_s 0,8 µm (standard)
- / also available in 3-A version

Dimensions:
/ DN 25 – DN 150
/ 1" – 6"



piggable
Double Seal
Valve



- / one-piece solid valve body
- / no welding distortion
- / only 4 gaskets + CIP valve
- / additional flush valve optional available
- / safe CIP/SIP cleaning
- / reduced cleaning water consumption

- / low impact on environment and waste water costs
- / utility model protection
- / also available in 3-A version

Dimensions:
/ DN 40 – DN 150
/ 1,5" – 6"

VERSION N32



Hygienic Mix Proof Change Over Valve with additional metallic stop in the valve seat.

For additional ports and/or other port configurations than standard please specify ports with letters. Port configurations in 360° possible.



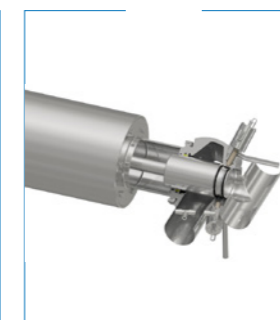
N4 piggable



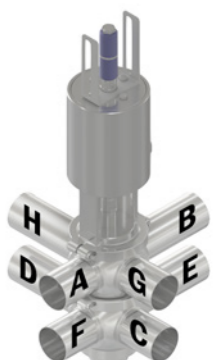
Mix Proof Double Seal Valve in Full Stroke Version

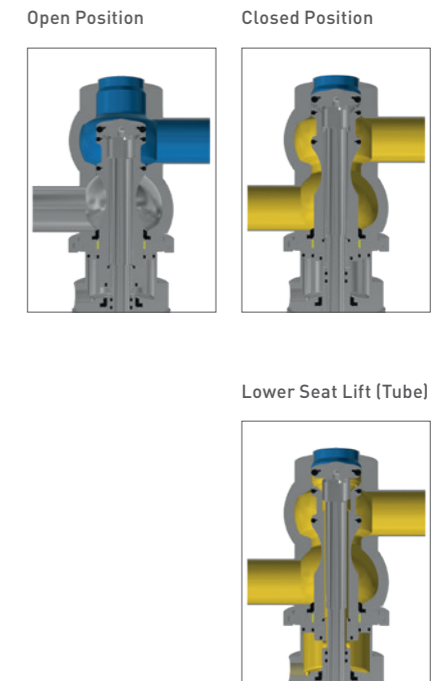
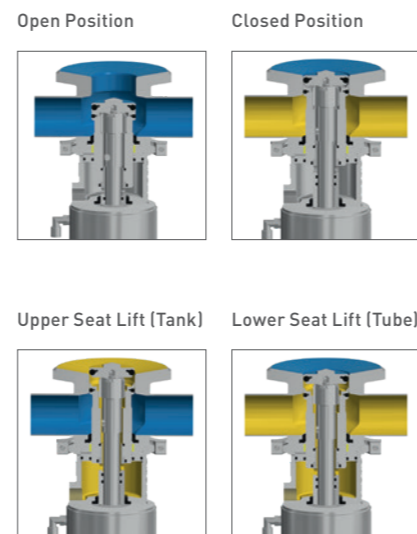


Mix Proof Double Seal Valve in Full Stroke Version for horizontal build-in position



For additional ports and/or other port configurations than standard please specify ports with letters. Port configurations in 360° possible.





- / with machined weld-in flange or separate weld-in flange
- / also available with only one port at valve body
- / one-piece solid valve body
- / no welding distortion
- / water hammer safe up to 20 bar (290 psi)
- / balanced valve disk
- / low control air consumption

- / standard actuator with seat lift function
- / service possible without air supply
- / valve seat removable from the bottom
- / radial sealing of both valve seats
- / only 3 gaskets in the product area
- / maintenance without special tools
- / stainless steel contact with product 316L

- / inner surface Ra $0,8 \mu\text{m}$ (standard)
- / sealing against 4 bar (58 psi) tank pressure
- / also available in 3-A version

Dimensions:
/ DN 25 – DN 100
/ 1" – 4"

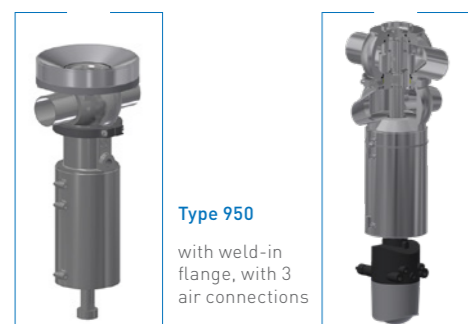
- / with machined weld-in flange or separate weld-in flange or weld-end to tank
- / also available with only one port at valve body
- / one-piece solid valve body
- / no welding distortion
- / water hammer safe up to 20 bar (290 psi)
- / balanced valve disk

- / low control air consumption
- / standard actuator with seat lift function
- / service possible without air supply
- / valve seat removable from the bottom
- / radial sealing of both valve seats
- / only 4 gaskets in the product area
- / maintenance without special tools
- / stainless steel contact with product 316L

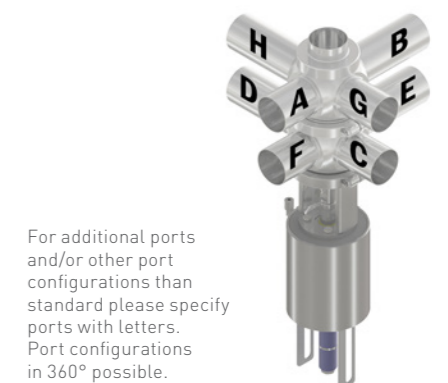
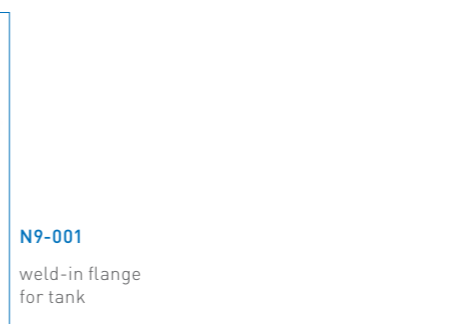
- / inner surface Ra $0,8 \mu\text{m}$ (standard)
- / sealing against 4 bar (58 psi) tank pressure
- / also available in 3-A version

Dimensions:
/ DN 40 – DN 100
/ 1,5" – 4"

VERSIONS OF N5



VERSIONS OF N9



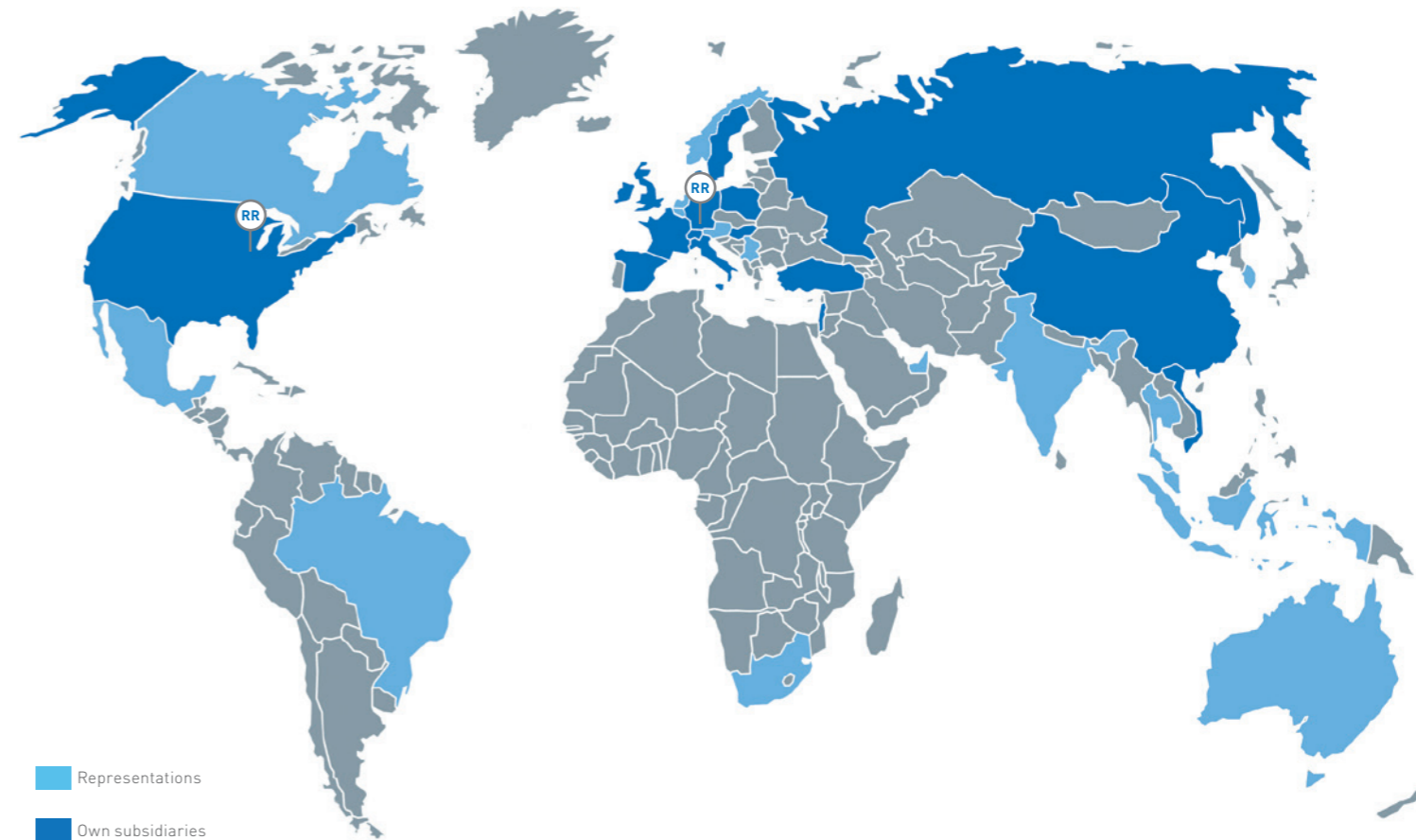


Technical Data

All Hygienic Mix Proof Valves have the following technical data.
For the benefits of each type please review the corresponding product pages.

MATERIAL	/ in contact with product	1.4404/AISI 316L
	/ optional	1.4435/AISI 316L
	/ not in contact with product	1.4301/AISI 304
	/ all valves are available in special alloys, such as Hastelloy C22, 1.4539/904L, 1.4529, AL6XN and others	
GASKETS	/ EPDM or FKM (other materials upon request)	
TEMPERATURES	/ continuous operation	130 °C* (266 °F)* (EPDM)
	/ steam sterilization	150 °C* (302 °F)* (EPDM)
PRESSURE	/ closing pressure	max. 10 bar (145 psi) (max. 4 bar (58 psi) for types N5 and N9)
	/ air pressure	min. 6 bar (87 psi) / max. 10 bar (145 psi)
	/ water hammer safe	up to 30 bar (435 psi) (except N4; max. 20 bar (290 psi) for types N5 and N9)
SURFACES	/ in contact with product	Ra ≤ 0,8 µm (32 µin) mechanically polished
	/ not in contact with product	Ra ≤ 1,6 µm (63 µin) mechanically polished
	/ higher quality surface finishes and e-polishing available upon request	

* dependent upon operating conditions



YOU DON'T HAVE TO CHANGE YOUR PROCESS. WE ADAPT OUR VALVES TO YOUR PROCESS!

With our longstanding experiences and our specialized production we can offer the suitable valve for almost every application.

Make an appointment today for a free consultation for your specific application.

FURTHER BROCHURES



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The **NEUMO Ehrenberg Group** is a family run holding, which is operating worldwide with more than 2.100 employees.

Since 1958 **Gebr. Rieger** has been a member of the NEUMO Ehrenberg Group. In our department valve technology Gebr. Rieger is successfully working in the **fields of valves, customized solutions**, such as **valve blocks** and **tubular structures** as well as **system engineering**, which includes **valve clusters, units, CIP-systems** and all kinds of **plug and play solutions**.

By its global approach Rieger gained international attention in the markets of **food, beverage** and **pharmaceutical industries**.

Besides the **Sampling Valves** the valve range also includes **Mix Proof Valves, Filling Valves** and **Pigging Systems**.



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