

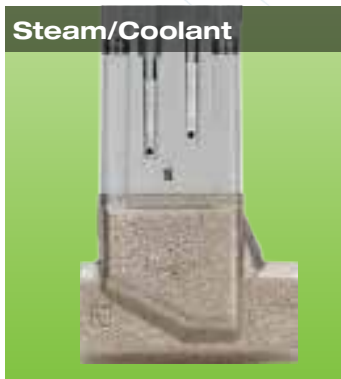
2 Way Valves

for Fluid Control

General Fluids



Steam/Coolant



Special Fluids



Dust Collector



34 series

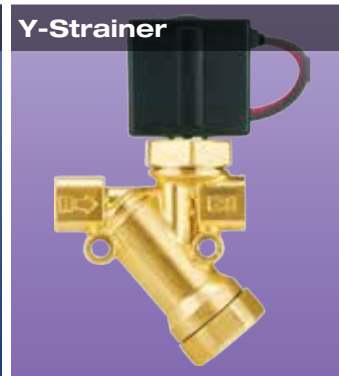
About
6,000
Models

A wide range
of variations

High Pressure



Y-Strainer

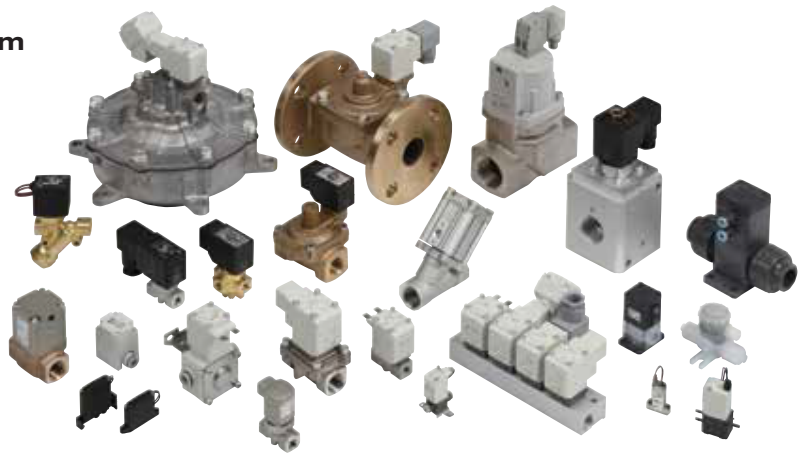


Energy Saving



SMC 2 Way valves play an active role in a wide range of industries.

SMC has established a cohesive system that includes research, development, production, sales, and after sales service, on global scale. As a company which supplies products to the production lines of customers, this system was established to provide the supply of high quality products and quick delivery to customers.



SMC Website | Model Selection Software

<http://www.smcworld.com>

Model Selection Software

<http://www.smcworld.com/select/en/>

Model Selection Software for 2/3-port Process Valve

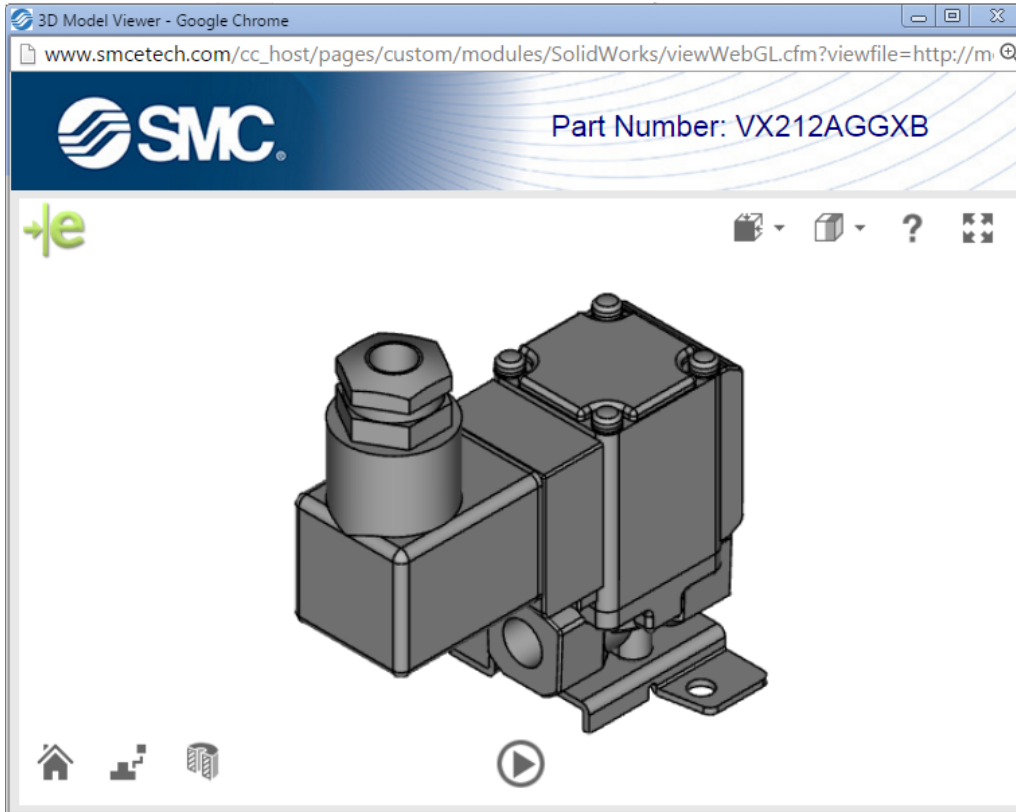
<http://mssc.smcworld.com/ModelSelect2/>

The screenshot shows the SMC Model Selection Software interface. On the left, a sidebar lists various software options. One option, 'Model Selection Software for 2/3-port Process Valve', is highlighted with a red box and a red arrow. On the right, the main interface displays a form for selecting valve specifications. The form is divided into several sections: 'Step 1: Select the fluid', 'Step 2: Select the valve specifications', 'Step 3: Select the electrical applications', and 'Step 4: Select other specifications'. Each section contains various input fields, including dropdown menus, text boxes, and checkboxes. The 'Step 1' section includes fields for 'Applicable fluid', 'Body material', 'Full temperature', 'Min. required flow rate', 'Upstream pressure', and 'Outlet pressure'. The 'Step 2' section includes fields for 'Number of ports', 'Valve construction', 'Thread type', 'Body type', 'Valve type', and 'Port size'. The 'Step 3' section includes a field for 'Power voltage'. The 'Step 4' section includes a field for 'Bracket/other valves'. At the bottom of the form, there are buttons for 'Apply' and 'Move to Step 2'.



Configure Part Numbers and Download CAD Files

<http://www.smcusa.com/products/Fluid-Process-Valves/>



VX2*2, Single Unit, Direct Operated 2 Port Solenoid Valve for Water

The VX2 for water is available with brass and stainless steel body. Three body sizes are available, with port size ranges from 1/8 to 1/2 inch. NBR seal is used as standard and FKM or EPDM is optional. Flow rate ranges from Cv of 0.23 to 2.21.

- IP65 enclosure
- Normally Closed and Normally Open type available, Class D coil
- Special construction improves service life when compared with current shading coil
- Power consumption: size 1 - 4.5w; size 2 - 7w; size 3 - 10.5w
- Body material: C37 (brass), stainless steel



Configuration Options

Part Number is Complete

VX2 12A G G XB

[Copy Configuration Number](#)

Product Options

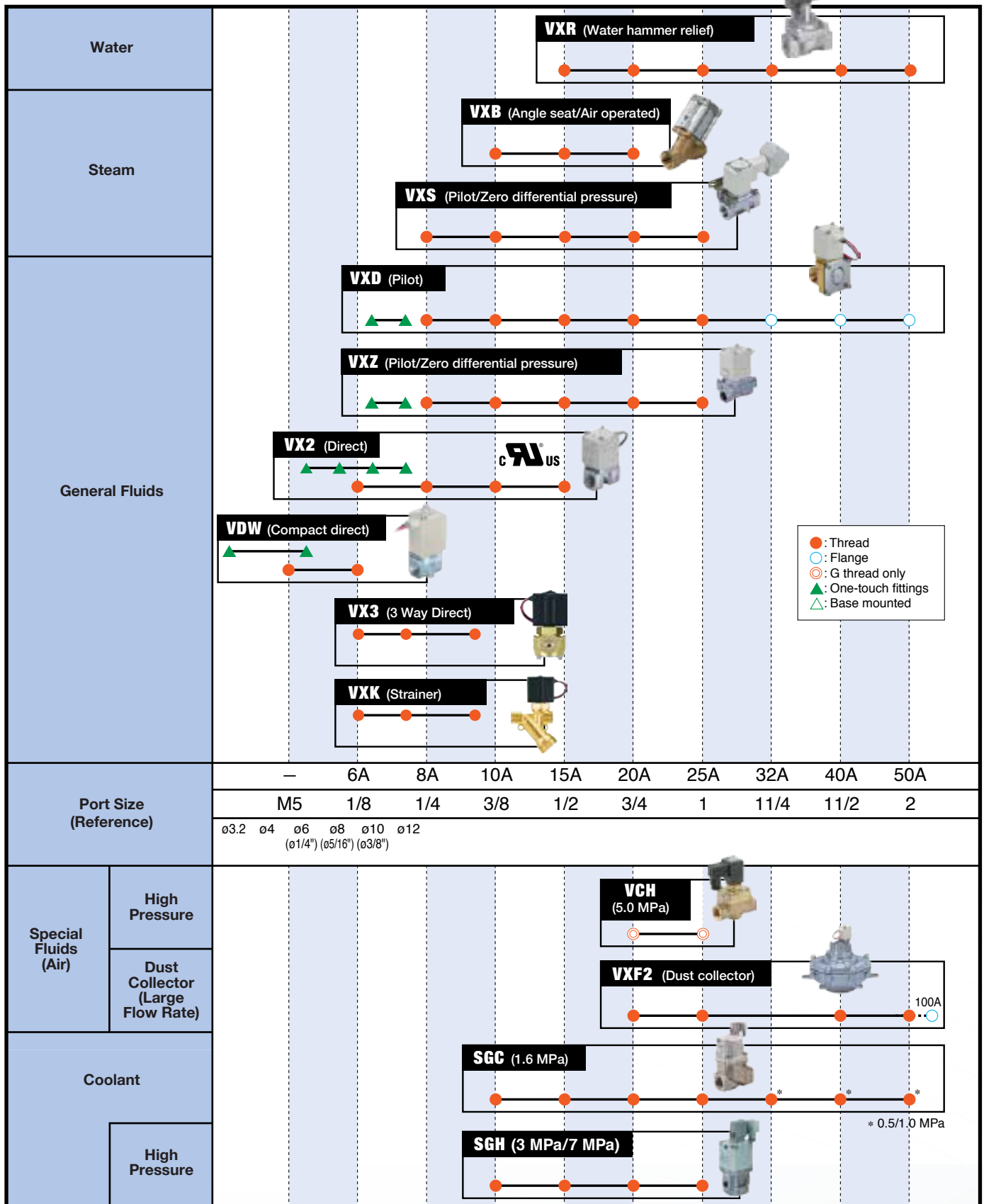
Select Product Options

Select values from the drop-down lists or make appropriate selections to configure the part number.















Size, Body, Valve Type	12A (Size: 1, Body Matl: C37, Port Size: 1/8, Orifice Dia: 2, N.C.)	
Voltage and Electrical Entry	G (24VDC, DIN Terminal w/Surge Voltage Suppressor)	
Other Voltages and Electrical Options	None	
Other Options	G (FKM, NPT Thread)	
Bracket Interchangeable w/Old Type	XB (Yes)	



Series Variations by Port Size



Series Variations by Applications

	Series	Fluids	Port Size	Orifice Diameter	Body Material	Seal Material	Operating pressure range
General Fluids	VX2 	Air, Water, Oil Medium Vacuum, Steam	1/8 to 1/2 One-touch fittings: ø6 to ø12 (ø1/4" to ø3/8")	ø2 to ø10	Stainless Steel C37 Aluminum Resin	NBR FKM EPDM	0 to 145 psi [0 MPa to 1.0 MPa] (Medium vacuum: 0.1 PA-abs or more)
	VDW 	Air, Water, Oil Medium Vacuum	M5 to 1/8 One-touch fittings: ø3.2 to ø6	ø1 to ø3.2	Stainless Steel C37 Aluminum Resin	NBR FKM	0 to 131 psi [0 MPa to 0.9 MPa] (Medium vacuum: 0.1 PA-abs or more)
	VXD 	Air, Water, Oil	1/4 to 1 Flange: 32A to 50A One-touch fittings: ø10" to ø12	ø10 to ø50	Stainless Steel C37 Aluminum Resin CAC	NBR FKM EPDM	2.9 to 145 psi [0.02 MPa to 1.0 MPa]
	VXZ 	Air, Water, Oil Low Vacuum	1/4 to 1 One-touch fittings: ø10 to ø12	ø10 to ø25	Stainless Steel C37 Aluminum Resin	NBR FKM EPDM	0 to 131psi [0 MPa to 1.0 MPa] (Low vacuum: 133 PA-abs or more)
	VXS 	Steam	1/4 to 1	ø10 to ø25	Stainless Steel C37	FKM	0 to 145 psi [0 MPa to 1.0 MPa]
	VXB 	Air, Water, Steam	3/8 to 3/4	ø11 to ø18	Stainless Steel CAC	FKM	0 to 232 psi [0 MPa to 1.6 MPa]
Water Hammer Relief	VXR 	Water, Oil	1/2 to 2	ø20 to ø50	CAC	NBR FKM	5.8 to 145 psi [0.04 MPa to 1.0 MPa]
Special Fluids	LVM 	Air, Water, Chemical Liquids, Deionized Water	M5, M6, 1/8 1/4-28UNF Base Mounted	ø1.1 to ø2	PEEK	EPDM FKM Kalrez®	-10.9 to 44 psi [-75 kPa to 0.3 MPa]
High Pressure	VCH 	Air	3/4 to 1	ø16 (N.C.) ø17.5 (N.O.)	C37	Polyurethane Elastomer	73 to 725 psi [0.5 MPa to 5.0 MPa]
Dust Collector	VXF2 	Air	Thread/Flange 20A to 100A	ø20 to ø100	Aluminum	NBR FKM	4.4 to 102 psi [0.03 MPa to 0.7 MPa]
Coolant	SGC 	Coolant	3/8 to 2	ø9 to ø51	Cast Iron	NBR FKM	0 to 232psi [0 MPa to 1.6 MPa] (Port Size: 1 1/4 to 2, 0 to 145 psi [1.0 MPa])
	SGH High Pressure 	Coolant	3/8 to 1	ø7.5 to ø15.4	Cast Iron	NBR FKM	0 to 1015 psi [0 MPa to 7.0 MPa]
With Strainer (100 mesh)	VXK 	Air, Water, Oil, Steam	1/8 to 3/8	ø2 to ø8	Brass (C37)	NBR FKM EPDM PTFE	Air & Water: 0 to 435 psi [0 MPa to 3 MPa] Oil: 0 to 290 psi [0 MPa to 2.0 MPa] Steam: 0 to 145 psi [0 MPa to 1.0 MPa]
3 Way Valve	VX3 	Air, Water, Oil, Steam	1/8 to 3/8	ø1.5 to ø4	Brass (C37) Stainless Steel	NBR FKM EPDM PTFE PFKM	0 to 232 psi [0 MPa to 1.6 MPa] Steam: 0 to 145 psi [0 MPa to 1.0 MPa]

Note) Kalrez® is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.

Process Valves

Direct Operated 2 Port Solenoid Valve

VX21/22/23



Large flow rate * Comparison with SMC current model

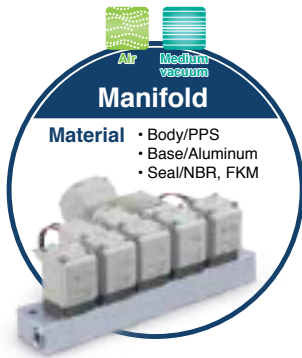
Flow Rate 20% UP* (Size 1)

Compact * Comparison with SMC current model

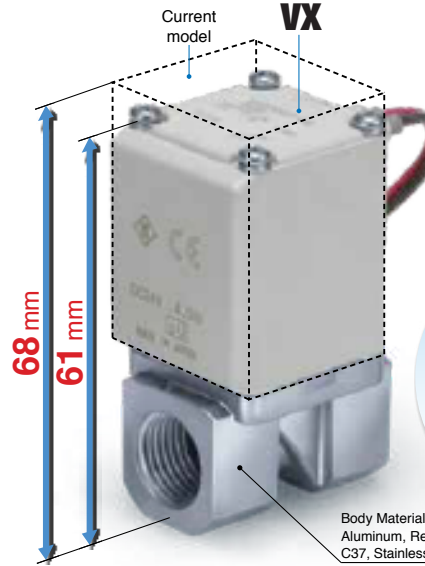
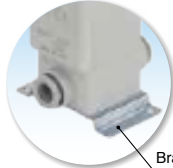
Height 10% Down* (Size 1)

Lightweight * Comparison with SMC current model

Weight 30% Down* (Size 1, Aluminum body)



With One-touch fittings (Resin body)



Body Material
Aluminum, Resin (Air)
C37, Stainless Steel (Water/Oil/Medium vacuum/Steam)

Enclosure

IP65*

* Electrical entry
Flat terminal type
terminal is IP40.

Power consumption

4.5 W (Size 1)
7 W (Size 2)
10.5 W (Size 3)
(DC/N.C. valve)

Angle Seat Valve/Air Operated Type

VXB



Long service life

Steam 3 million cycles*

Air 5 million cycles*

* Based on SMC's test condition

Squeeze seal with scraper function

Scraper function added to the seal to shut off fluid leakage

Resin scraper

Scraper function during the main valve stroke

Protective seal

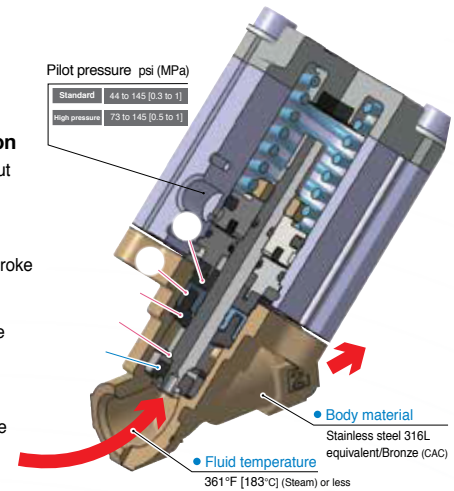
Prevents foreign matter from entering the squeeze seal when the valve is open.

Guide bushing

Prevents misalignment and lengthens the squeeze seal life.

Pilot pressure psi (MPa)

Standard	44 to 145 (3.0 to 1)
High pressure	73 to 145 (0.5 to 1)



• Body material
Stainless steel 316L equivalent/Bronze (CAC)
• Fluid temperature
361°F [183°C] (Steam) or less

Low Leakage

Internal Leakage 10 cm³/min* or less
* With air

Rubber seal

Special FKM with high sealing performance

Low pressure loss

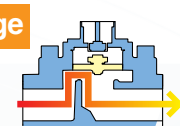
Pressure loss Small

Angle seat structure



Pressure loss Large

Current structure

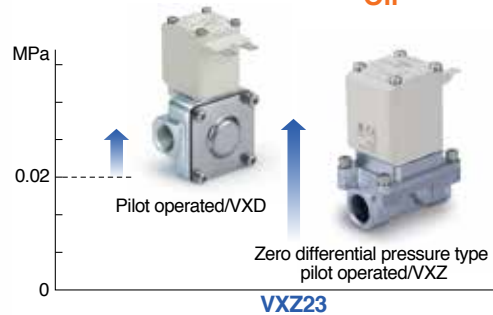


Pilot Operated 2 Way Valve

VXD/VXZ



Enclosure IP65



Built-in full-wave rectifier type (AC specification)

- Improved durability**
 Service life is extended by the special construction. (compared with current AC specification)
- Improved OFF response**
 Specially constructed to improve the OFF response when operated with a higher viscosity fluid such as oil.
- Reduced buzz noise**
 Rectified to DC by the full-wave rectifier, resulting in a buzz noise reduction.
- Low-noise construction**
 Specially constructed to reduce the metal noise during operation.

Compact Direct Operated 2 Way Valve

VDW



Environmental Performance

IP65

Power Consumption

2.5_w 3_w
 (Size 1) (Size 2)

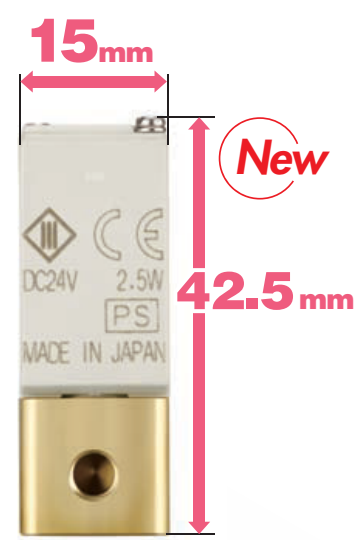


Compact



Body Material
 Brass, Stainless Steel, Aluminum, Resin

Port Size: M5 to 1/8"
 Orifice diameter: Ø1 to Ø3.2



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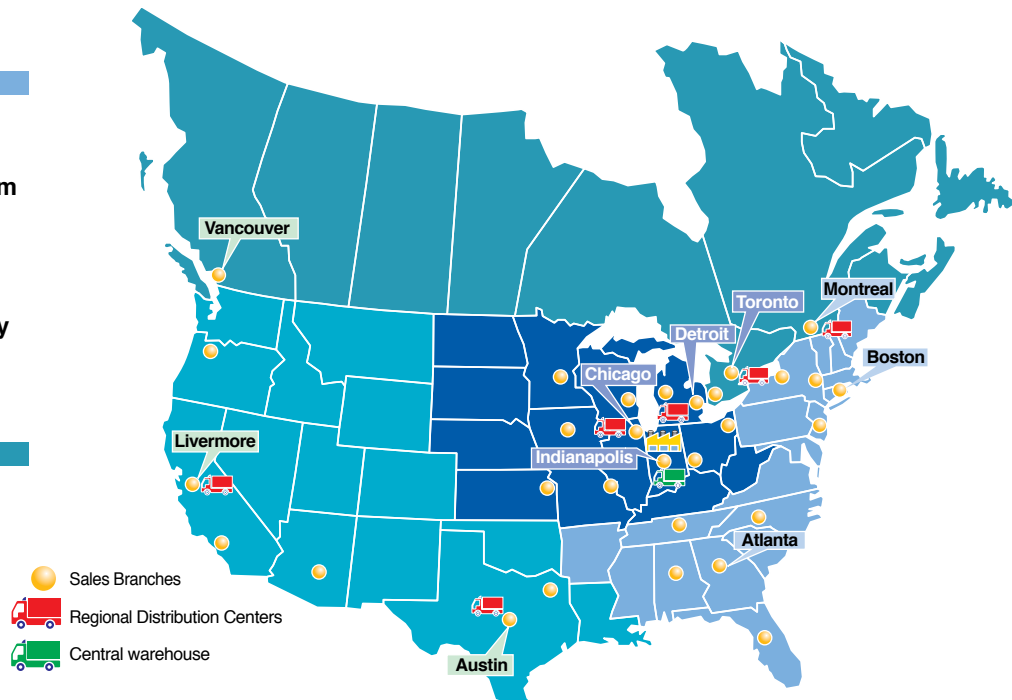
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