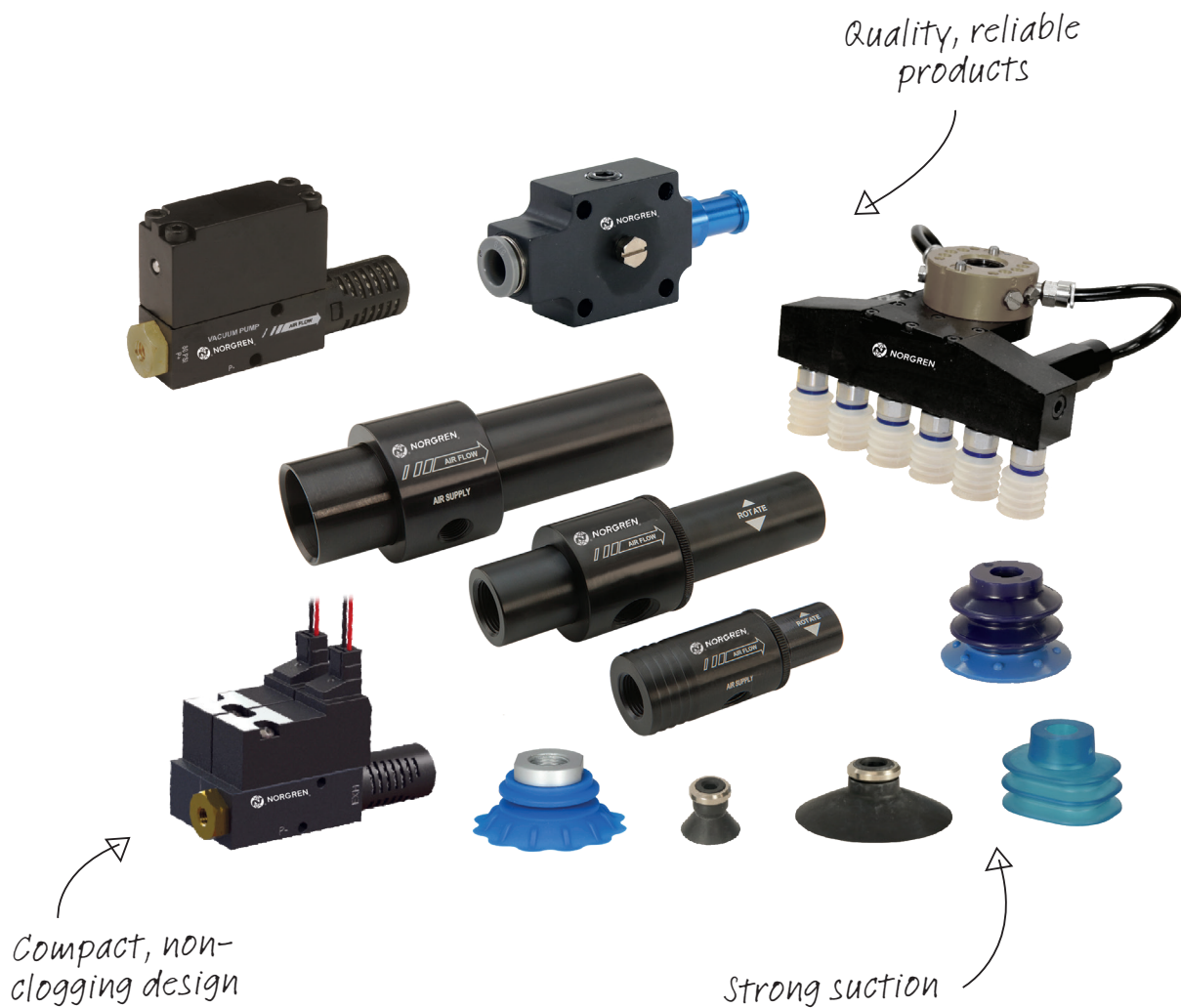


Vacuum Technology

Efficient & Reliable Vacuum Solutions for Industrial Applications



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Breakthrough Engineering for a Better World

Norgren is part of global engineering organization IMI plc. IMI is at the forefront of delivering the solutions we need in a changing world and is focused on **creating tremendous value by solving key industry problems** in attractive markets and employing the best.

Norgren has a proud history of creating innovative engineering solutions in precise motion control and fluid technology, and we collaborate with our customers across more than 50 countries in critical areas such as Factory Automation, Material Handling, Rail, Energy, Process Control, Life Science and Commercial Vehicles.

From improving speed, productivity, reliability and efficiency of equipment, to generating significant energy and cost savings, or lowering total cost of ownership across many industries, Norgren's high-quality solutions are designed to help customers pursue progress, achieve new goals and overcome problems.

With market-leading industry expertise, we offer the capability, resources, engineering intelligence and global support infrastructure to tackle the largest project demands.

Our world-class portfolio of fluid and motion control products include Norgren, Buschjost, FAS, Herion, Kloehn, Maxseal and Thompson Valves. Supplied either individually or combined into powerful customized solutions to meet customer needs.

Breakthrough engineering you can count on.





Cutting-Edge Vacuum Technology with Industry-Leading Support

Norgren provides high performance vacuum solutions that are efficient and reliable in order to operate in adverse conditions where others might fail. We offer the most diverse line of **vacuum products** to meet your manufacturing and automation requirements.

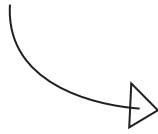
Norgren offers custom, modified products and different sizes, shapes, and materials to choose from. Take advantage of our end-of-arm offering consisting of tooling components to build and modify your own system, out-of-the-box ready to go models, and semi-custom to fully custom options to meet your application demands.

Industry-Leading Support:

- » **Online part configuration** – Customizable models with a wide variety of options
- » **Resources** – Access to an expansive 2D/3D cad file library online
- » **Availability** – Real-time price, availability, and delivery information on norgren.com
- » **Certification** – Manufactured to the strictest standards with ISO 9001 certification
- » **Experienced Engineers** – Our experienced application engineers will size and select the optimum vacuum product for you, eliminating the guesswork - saving you time and money
- » **Let Us Help You Find a Solution** – Not sure if vacuum technology will work? Send samples of your most challenging problems to us and our vacuum experts. We will find a solution and send a video of the results.



Single stage and multi-stage vacuum generators




Material conveying, variable flow generators, and air amplifiers



End-of-arm tooling



Various styles, shapes, and sizes of vacuum cups

A wide-angle, low-perspective shot of a modern industrial manufacturing facility. The scene is filled with complex machinery, including conveyor belts, robotic arms, and large metal structures. The floor is polished and reflects the overhead lights. The background shows a vast, open space with more equipment and structural elements of the factory. The overall atmosphere is one of precision and scale.

**Thousands of
solutions with
endless
configurations.**

Venturi Vacuum Generators

- » Safe operation with high flow and strong holding force
- » High productivity with powerful vacuum up to 28"Hg [948mbar]
- » Compact and lightweight with a modular design for speed of installation
- » Multi-stage provides high flow rates with lower air consumption
- » Reliable trouble-free single stage operation:
 - » Straight-through design, non-clogging
 - » No moving parts to wear or clog
 - » No maintenance
 - » No downtime

Variable Flow Venturi Vacuum Generators

- » Adjustable vacuum level and flow rate:
 - » Powerful vacuum up to 25"Hg [847mbar]
 - » High flow, up to 120 SCFM [3398 LPM]
- » Energy efficient-customer controlled; high performance to air consumption ratio
- » Safe operation:
 - » No electricity needed at the generator
 - » No heat generated
- » Reliable trouble-free operation:
 - » Straight-through design, non-clogging
 - » No maintenance

Adjustable Air Amplifiers/Blowers

- » Field adjustable for individual applications
- » Holds porous materials securely
- » Easy to install - compact and lightweight
- » Energy efficient, unlike regenerative blowers that must run continuously
- » Reliable and durable - operates trouble-free:
 - » Ideal for adverse operating conditions
 - » No moving parts to wear
 - » Straight-through design, non-clogging
 - » No downtime



NVP Series with modular venturi design



NVP Series with integrated valve



NMSV Multi-stage Series with interchangeable cartridge



*NVDF 200
6.0 SCFM maximum vacuum flow*



*NVDF 250
10.0 SCFM maximum vacuum flow*



*NVDF 750
120.0 SCFM maximum vacuum flow*



*NCDF-20-E
16 SCFM maximum exhaust output*



*NCDF-75
70 SCFM maximum exhaust output*



*NCDF-200H
300 SCFM maximum exhaust output*



NDF 40-12
Material conveying generator



NDF 25-12-110-RI
Aggregate conveying generator



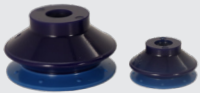
NDF 25-12-110-RI
Liquid conveying generators



NCRVT collaborative robot vacuum tool



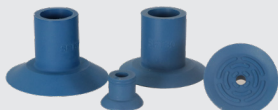
Heavy duty spring levelers



Single bellows vacuum cups



Long multi-bellows cups for
specialty food handling



Flat cups for handling packaging

Material Conveying Generators

- » Inline transfer of bulk materials, complex shapes, individual objects, and seldedge
- » Efficient instant on and off, low operating costs
- » Fast response - installs close to vacuum point
- » Easy to install - connect tubing to the vacuum and exhaust ports, and supply compressed air
- » Safe operation - no electricity needed at the generator
- » Reliable and durable trouble-free operation:
 - » Ideal for adverse operating conditions
 - » No moving parts to wear or clog
 - » No maintenance

End-of-Arm Tooling

- » Standard and customs available
- » Integrate vacuum generators, suction cups, spring levelers, fittings, and manifolds
- » Modular, lightweight, compact components
- » T-slot fraction or metric compatible
- » Modular components - minimal design time
- » Easy set-up, simple connections, and fast installation
- » Integrates with existing plant equipment for quick tool changes, minimal downtime

Vacuum Cups & Fittings

- » Wide range of sizes 0.09" to 7.9" in diameter
- » Dual durometer for long wear and excellent sealing
- » FDA approved materials
- » Flat and bellows cups available to provide flexibility
- » Specialty cups available for application specific situations
- » Round and oval cups available
- » Over 350 options available between cup size, shape, style, and material
- » Fittings are available in various fitting groups and thread sizes to firmly keep cup secure



A close-up, blue-tinted photograph of an industrial robotic arm. The arm is composed of black and silver metal joints and pipes. At the end of the arm, a vacuum nozzle is visible, positioned over a series of circular components on a work surface. The background is blurred, showing more of the industrial environment.

**Innovative
vacuum
technology.**

Norgren operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in Brazil, China, Czech Republic, Germany, India, Mexico UK and the USA.

For information on all Norgren companies visit

www.norgren.com

Supported by distributors worldwide.

For further information, scan this QR code or visit
www.norgren.com



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Due to our policy of continuous development, Norgren reserve the right to change specifications without prior notice.

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IMI

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