FF7120 Series

High Pressure Filters

Customer Value Proposition:

A high pressure filter series designed with a Stainless Steel housing ensures maximum system protection.
A quality filter available in 2 bowl lengths for hydraulic system designers working in applications such as offshore and marine.

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Product Features:

- Stainless Steel 316 housing design.
- 420 bar maximum operating pressure.
- ATEX category 2 rated design.
- Microglass III media ensures quality filtration.
- Visual and electrical indicator options.
- Operating temperature -20° C to + 120°C

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FF7120 Series

High Pressure Filters

Features & Benefits

Features	Advantages	Benefits
Stainless Steel housing	Suitable for offshore applications	Durable filter solution
Compact design	Small space envelope required	Easy integration of filter in system
Fatigue tested design	High design safety level	Suitable for heavy duty applications
ATEX rated design	Filter can be applied in ATEX rated zones	Certification included with filter
Microglass III media	High contamination removal efficiency	Improved system protection

Typical Applications

- Offshore hydraulic applications
- Chemical injection
- Marine applications
- Drilling and mining equipment

The Parker Filtration FF7120 Series High Pressure Filters

The Parker FF7121 and FF7122 high pressure filters feature a Stainless Steel housing. With blocked bypass, these filters are designed to provide maximum protection to the hydraulic system.
Parker's filter media technology ensures that contamination is removed effectively from the fluid under dynamic operating conditions subject to flow and pressure variations.

Specification

Operation pressure:
Max. 420 bar

Fatigue pressure:
1-420 bar
Number of cycles: 1,000,000

Burst Pressure:
630 bar

Assembly:
In-line

Connections:
Threaded G1/2" ports
Optional 1/2" NPT ports

Filter housing:
Stainless steel 316 grade

Seal material:
Nitrile, Fluoroelastomer

Operating temperature:
-20°C to +120°C

Bypass setting:
Blocked

Degree of filtration:
Determined by multipass test in accordance with ISO16889

Flow fatigue characteristics:
Filter media is supported so that the optimum fatigue life is achieved
Filtration media = Microglass III

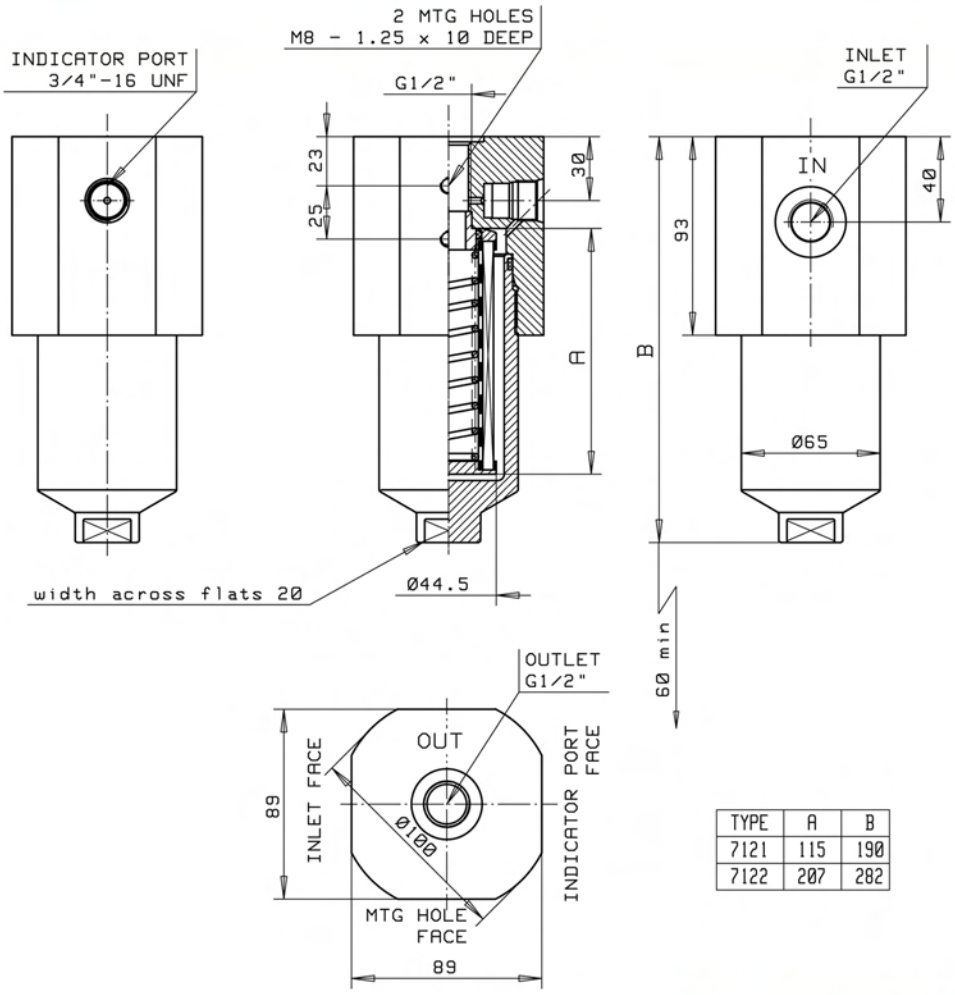
Element collapse pressure:
210 bar (ISO 2941)

Pressure indicator options:
Setting 7 bar
Visual differential pressure indicator
Electric differential pressure indicator

ATEX Certification filter housing:
Atex category 2
Product group Ex-equipment
Product sub-group Non

Options:
ATEX rated indicator (II 2GD Eex MII T6)

Filter element:
Conventional style element with steel end caps



TYPE	A	B
7121	115	190
7122	207	282

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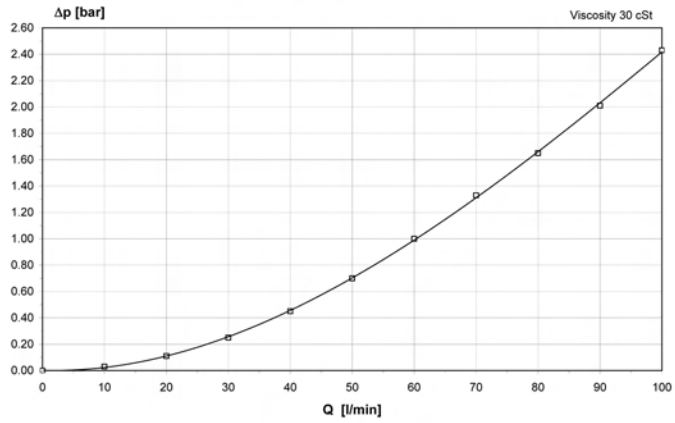
FF7120 Series

High Pressure Filters

Pressure Drop Curves

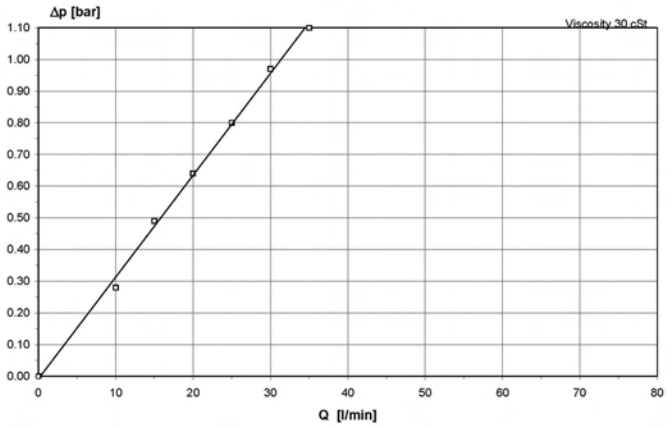
The recommended level of the initial pressure drop for low pressure filters is max 0.5 bar.
If the medium used has a viscosity different from 32cSt, pressure drop over the filter can be estimated as follows:
Δp = (Δp32 x viscosity of medium used) / 32cSt.

FF7121/7122 Housing

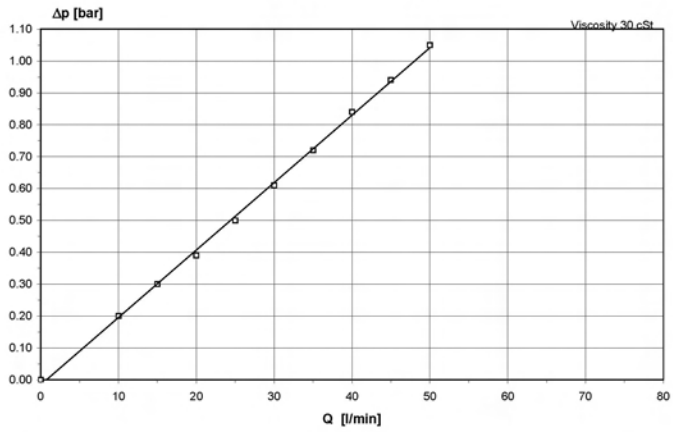


FF7121 (Element Length 116mm)

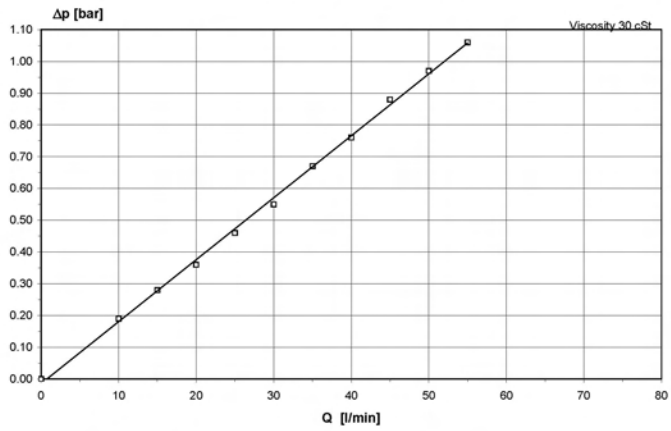
PRESSURE DROP CURVE
FC7121.A002.BS



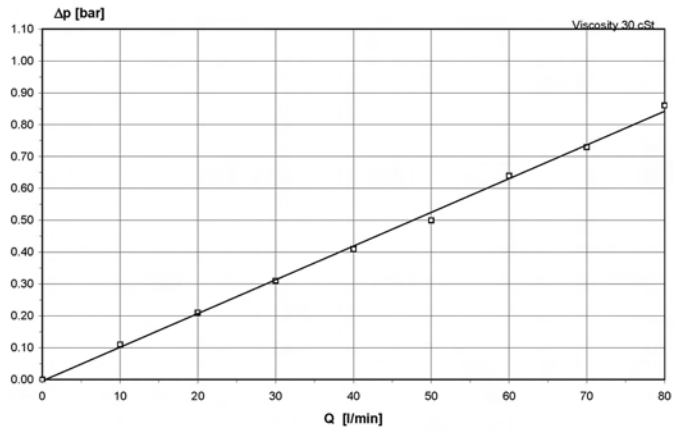
PRESSURE DROP CURVE
FC7121.A005.BS



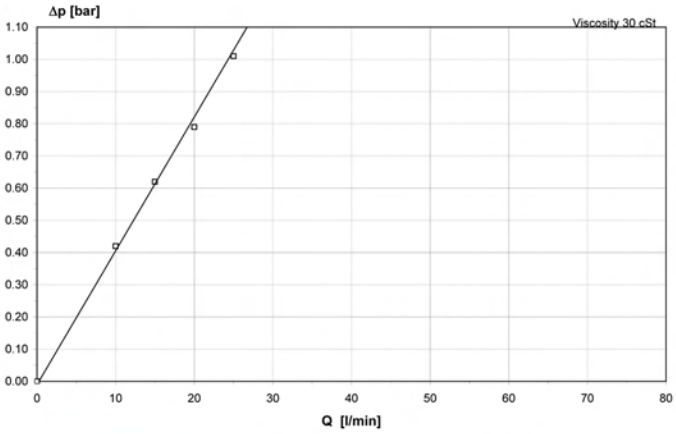
PRESSURE DROP CURVE
FC7121.A010.BS



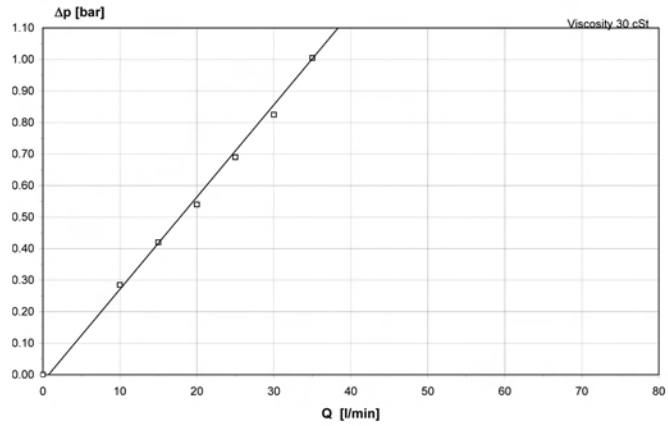
PRESSURE DROP CURVE
FC7121.A020.BS



PRESSURE DROP CURVE
FC7121.W010.BS



PRESSURE DROP CURVE
FC7121.W040.BS

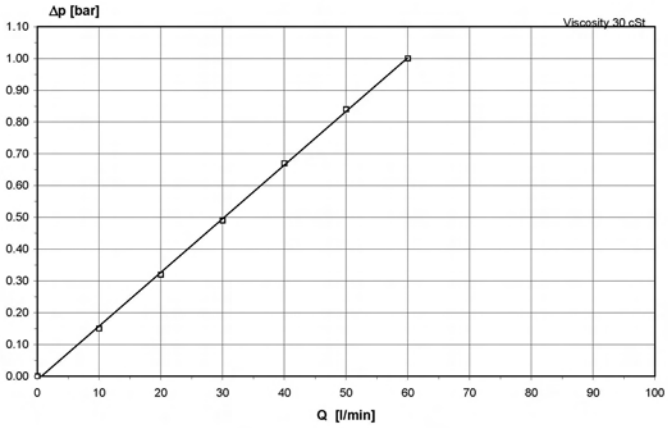


FF7120 Series

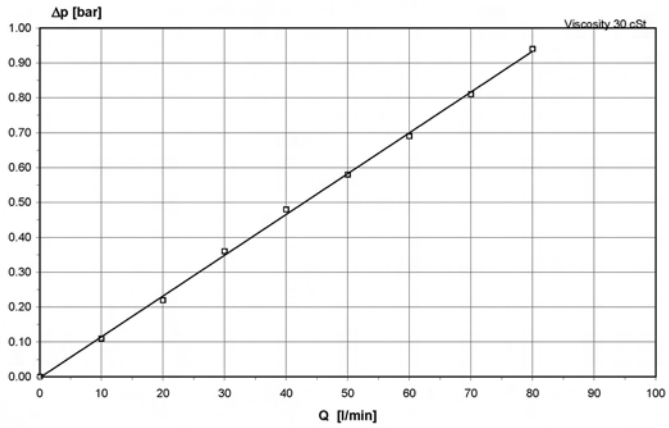
High Pressure Filters

FF7122 (Element Length 208mm)

PRESSURE DROP CURVE
FC7122.A002.BS



PRESSURE DROP CURVE
FC7122.A005.BS



PRESSURE DROP CURVE
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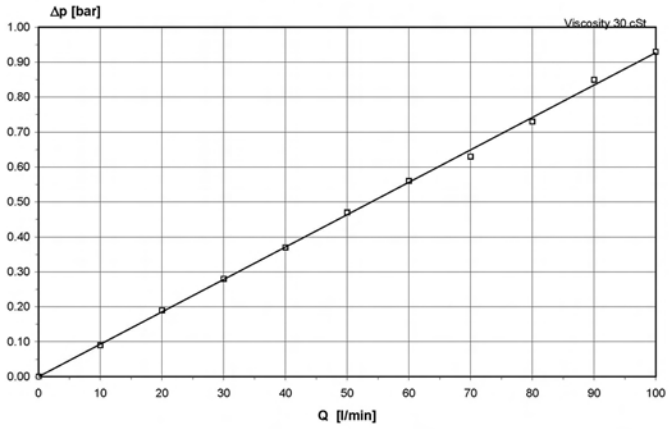

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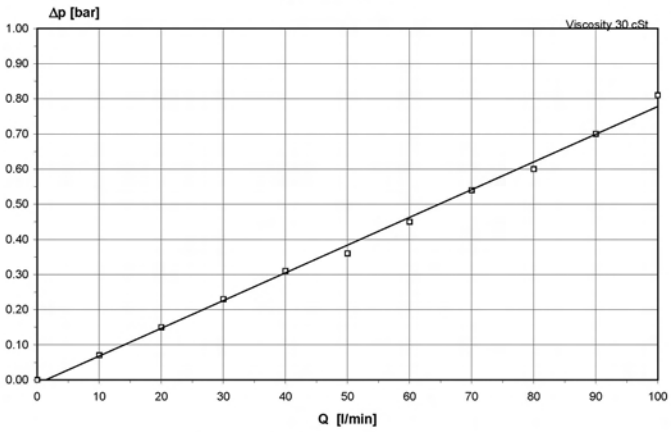
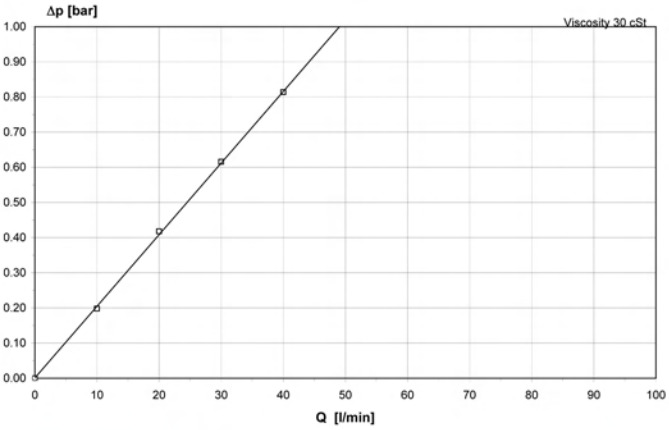
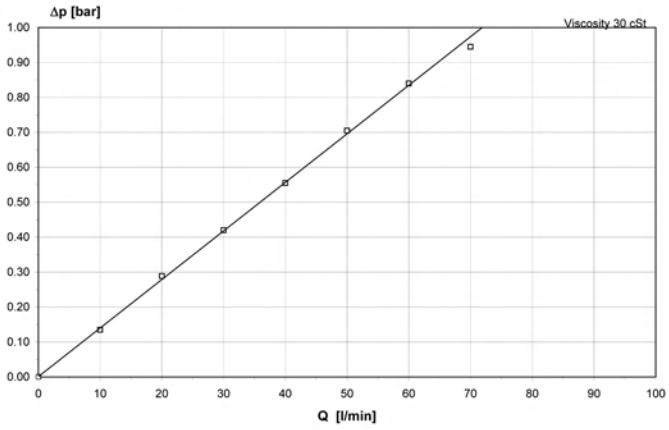


PRESSURE DROP CURVE
FC7122.W010.BS



PRESSURE DROP CURVE
FC7122.W040.BS



Ordering Information

ORDERING EXAMPLE FF7121 HIGH PRESSURE FILTER

Box 1	*Box 2*	*Box 3*	*Box 4*	*Box 5*	*Box 6*	*Box 7*	*Box 8*
FF	7121	A010	V	00	GL08	V70	

Note: Filter with LEIF® element and sleeve

PART NUMBER MATRIX:

Box 2

	Code
Element length 116 mm	7121
Element length 208 mm	7122

Box 3

Degree of Filtration							
Element		Filtration fineness absolute					
		Q3 glassfibre ßx(c) >200, High Strenght Elements				Stainless steel mesh high collapse	
		Q02 (2 micron)	Q05 (5 micron)	Q10 (10 micron)	Q20 (20 micron)		
		Code	**Code**	**Code**	**Code**	**Code**	**Code**
Disposable element		A002	A005	**A010**	**A020**	W10	W40

Box 4

Nitrile	**B**
Fluoroelastomer	V

Box 5

Bypass Valve	
Bypass Valve	**Code**
Blocked	**00**

Box 6

Filter Connection	
Ports	**Code**
1/2"NPT Thread	NL08
G1/2" Thread	**GL08**

Box 7

Indicator	
Visual indicator 2,5 bar	V25
Electrical indicator 2,5 bar (max. 250 VAC)	T25
Electronic indicator 2,5 bar (10...36VDC)	F25
Visual indicator 5,0 bar	V50
Electrical indicator 5,0 bar (max. 250 VAC)	T50
Electronic indicator 5,0 bar (10...36VDC)	F50
Visual indicator 7,0 bar	**V70**
Electrical indicator 7,0 bar (max. 250 VAC)	**T70**
Electronic indicator 7,0 bar (10...36VDC)	F70

Atex rated indicator (electrical) on request. Visual indicator is certified for Atex category 2, non electrical equipment

Box 8

Options	**Code**
No options	

Degree of filtration						**Media code**
Average filtration beta ratio ß (ISO 16889) / particle size µm [c]						
ßx(c)=2	**ßx(c)=10**	**ßx(c)=75**	**ßx(c)=100**	**ßx(c)=200**	**ßx(c)=1000**	
% efficiency, based on the above beta ratio (ßx)						
50.0%	**90.0%**	**98.7%**	**99.0%**	**99.5%**	**99.9%**	
N/A	N/A	N/A	N/A	N/A	4.5	**02Q/02QL**
N/A	N/A	4.5	5	6	7	**05Q/05QL**
N/A	6	8.5	9	10	12	**10Q/10QL**
6	11	17	18	20	22	**20Q/20QL**

Highlights Key (Denotes part number availability)

123	Item is standard
123	Item is standard green option
123	Item is semi standard
123	Item is non standard

Note: Standard items are in stock, semi standard items are available within four weeks

WARNING-USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through their own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the applications are met.

  The user must analyse all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalogue and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.
- Offer of sale. Please contact your Parker representative for a detailed 'Offer of Sale'.

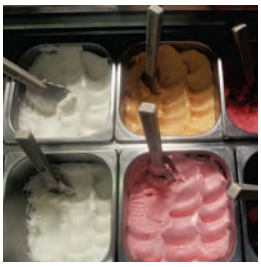
Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion or control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker.

AEROSPACE

Key Markets
- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

Key Products
- Flight control systems & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes



CLIMATE CONTROL

Key Markets
- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

Key Products
- CO^2 controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- Solenoid valves
- Thermostatic expansion valves

ELECTROMECHANICAL

Key Markets
- Aerospace
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products
- AC/DC drives & systems
- Electric actuators, gantry robots & slides
- Electrohydrostatic actuation systems
- Electromechanical actuation systems
- Human machine interface
- Linear motors
- Stepper motors, servo motors, drives & controls
- Structural extrusions

FILTRATION

Key Markets
- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

Key Products
- Analytical gas generators
- Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration & systems
- Hydraulic, lubrication & coolant filters
- Process, chemical, water & microfiltration filters
- Nitrogen, hydrogen & zero air generators

FLUID & GAS HANDLING

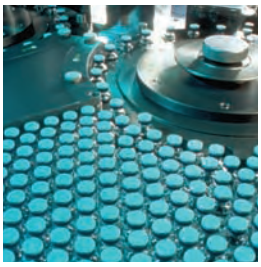
Key Markets
- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products
- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

HYDRAULICS

Key Markets
- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products
- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



PNEUMATICS

Key Markets
- Aerospace
- Conveyor & material handling
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

Key Products
- Air preparation
- Brass fittings & valves
- Manifolds
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves & controls
- Quick disconnects
- Rotary actuators
- Rubber & thermoplastic hose & couplings
- Structural extrusions
- Thermoplastic tubing & fittings
- Vacuum generators, cups & sensors

PROCESS CONTROL

Key Markets
- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

Key Products
- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds

SEALING & SHIELDING

Key Markets
- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products
- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management

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