

Actuated Valves Price List

Effective March 1, 2001



**Spare Parts and Accessories for Electric and
Pneumatic Actuators**

Westlock Switches

GEORGE FISCHER +GF+

Type 546 Accessories



Mounting Plate – Type 546 (A)

Size ID Inch		\$
3/8	167 484 110	5.60
1/2	167 484 110	5.60
3/4	167 484 110	5.60
1	167 484 110	5.60
1 1/4	167 484 111	7.20
1 1/2	167 484 111	7.20
2	167 484 111	7.20



Multifunction Module – Type 546 Without Limit Switches (C)

Size ID Inch		\$
3/8	167 482 680	5.60
1/2	167 482 680	5.60
3/4	167 482 681	5.60
1	167 482 681	5.60
1 1/4	167 482 682	10.00
1 1/2	167 482 682	10.00
2	167 482 683	11.40



Multifunction Module – Type 546 With Mechanical Limit Switches (C)

Size ID Inch	Ag-Ni Contacts	\$	Au Contacts	\$
3/8	^167 482 626	60.00	*167 482 635	60.00
1/2	^167 482 626	60.00	*167 482 635	60.00
3/4	^167 482 627	67.00	*167 482 636	67.00
1	^167 482 627	67.00	*167 482 636	67.00
1 1/4	^167 482 628	81.00	*167 482 637	81.00
1 1/2	^167 482 628	81.00	*167 482 637	81.00
2	^167 482 629	86.00	*167 482 638	86.00

Multifunction Module – Type 546 With Inductive Limit Switches (C)

Size ID Inch	PNP	\$	NPN	\$
3/8	*167 482 662	218.00	*167 482 653	218.00
1/2	*167 482 662	218.00	*167 482 653	218.00
3/4	*167 482 663	223.00	*167 482 654	223.00
1	*167 482 663	223.00	*167 482 654	223.00
1 1/4	*167 482 664	240.00	*167 482 655	240.00
1 1/2	*167 482 664	240.00	*167 482 655	240.00
2	*167 482 665	243.00	*167 482 656	243.00

Type 546 Actuated Accessories



Electric Actuator - Type EA 11 with Manual Override (C)

Voltage		\$
100-230 VAC	198 150 180	225.00
24 VAC/DC	198 150 181	225.00



Pneumatic Actuator - Type PA 11 (C)

Fail Safe		\$
FC	198 150 127	158.00
FO	198 150 128	158.00
DA	198 150 129	143.00

For use with Type 546 ball valve 3/8" - 1"

Pneumatic Actuator - Type PA 21 (C)

Fail Safe		\$
FC	198 150 130	187.00
FO	198 150 131	187.00
DA	198 150 132	164.00

For use with Type 546 ball valve 1-1/4" - 2"



Declutchable Manual Override for Pneumatic Actuator (C)

Size ID Inch		\$
3/8	198 000 500	73.00
1/2	198 000 500	73.00
3/4	198 000 500	73.00
1	198 000 500	73.00
1 1/4	198 000 501	73.00
1 1/2	198 000 501	73.00
2	198 000 501	73.00

Adapter Plate/Coupling for Type EA 11 and Type PA 11/21 Actuators (C)

Size ID Inch		\$
3/8	198 150 556	15.00
1/2	198 150 556	15.00
3/4	198 150 557	15.00
1	198 150 557	15.00
1 1/4	198 150 558	15.00
1 1/2	198 150 558	15.00
2	198 150 559	15.00

EA 21 Component Parts

Electric actuator

(C)



Voltage	Part No.	\$
100-230 V, 50-60 Hz	198 150 182	488.00
24 VDC-AC, 50-60 Hz	198 150 183	488.00

EA 21 Accessories

Limit Switches

(C)

Description	Part No.	\$
Limit Switch AgNi	199 190 092	63.70
Limit Switch AU	199 190 093	84.00
Limit Switch PNP	199 190 095	212.50
Limit Switch NPN	199 190 096	212.50

Miscellaneous

(C)

	Code	\$
Monitor Print*	199 190 079	134.80
Cycle Time Extension	199 190 080	30.90
Current Monitoring	199 190 081	30.90
Cycle Time Monitoring	199 190 082	30.90
Cycle Counter	199 190 083	30.90
Position Sensor 4-20mA**	199 190 084	141.50
Fail-Safe Unit	199 190 085	282.20
Heating Element	199 190 086	70.70
Fail-Safe Unit + Heating Element	199 190 087	287.20
Positioner PE 25***	199 190 088	408.80

*Monitor Print used for slowing actuator

**Position Sensor 4-20mA must be used with either the PE 25 positioner or Monitor Print

***Positioner must use Position Sensor 4-20mA

\$20.00 List Price adder for any combination of accessories that are factory assembled. Specify on your order.

How to order

Example - The part number for a 1" Type 116 PVC Ball Valve (2-way), electrically actuated, without manual override, in 120 VAC, with socket connectors and EPDM seals is:

$$\frac{199.116}{1} \quad \frac{205}{2}$$

Type 116



Type 346 ball valve

Type EA 20 actuator sizes - 3/8-2"

PVC Ball Valve (2-way) – Electrically Actuated (C) without manual override 120/240 VAC/50-60Hz

Size ID Inch	Part Number 199.116 ()									
	Socket				Threaded				Flanged	
	EPDM	\$	Viton	\$	EPDM	\$	Viton	\$	EPDM	Viton
3/8	(202)		(212)		(332)		(342)		NA	NA
1/2	(203)		(213)		(333)		(343)		NA	NA
3/4	(204)		(214)		(334)		(344)		NA	NA
1	(205)		(215)		(335)		(345)		NA	NA
1 1/4	(206)		(216)		(336)		(346)		NA	NA
1 1/2	(207)		(217)		(337)		(347)		NA	NA
2	(208)		(218)		(338)		(348)		NA	NA

How to order Specials

When ordering a special actuator package use an "S" before the part number of the standard actuator package followed by a description of the accessory or modification needed.

Example — You want to order the assembled valve described above in the "How to order" example except it needs to have the PE22P positioner installed (reference page 30).

S199.116.205 with PE22P installed

Polypropylene and SYGEF-PVDF Sizes

The outside pipe diameter (d) and the inside pipe diameter (DN) are commonly referred to for a complete description of the piping system. In addition, the equivalent nominal ID inches is also used. Below is a complete chart showing the correlation between all three forms of measurement.

OD d mm	ID DN mm	ID inch	OD d mm	ID DN mm	ID inch
16	10	3/8	75	65	2 1/2
20	15	1/2	90	80	3
25	20	3/4	110	100	4
32	25	1	140	125	5
40	32	1 1/4	160	150	6
50	40	1 1/2	225	200	8
63	50	2	280	250	10

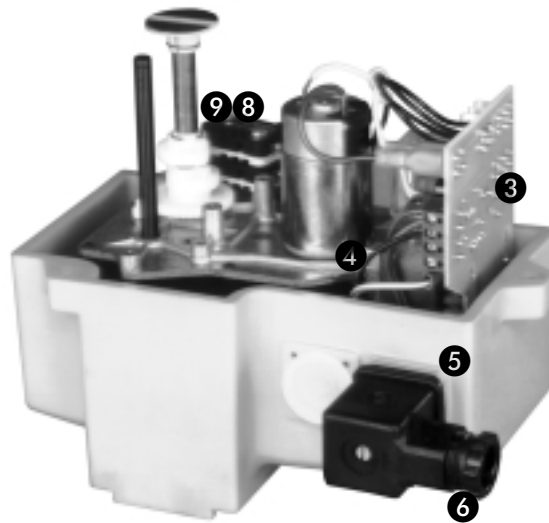
Electric Actuator Spare Parts

Spare Parts for EA 20 Actuator

(C)

Description	Order number	\$
3 Power supply board 120/240VAC, 50-60Hz	198.150.586	273.-
3 Power supply board 24 VDC/24 V, 50-60Hz	198.150.587	220.-
4 Gear box and motor (irrespective of voltage)	198.800.972	488.-
5 EA DIN plug	198.150.444	30.-
6 EA unit cable plug	198.804.621	7.-
EA unit 1/2" conduit plug (optional)	150.101.062	7.-
7 Cover set consisting of: - 1 Cover - 1 Showcase Inspection glass - 1 O-ring - 1 Clamp - 1 Seal - 5 PT-screws	198.000.138	283.-
8 Limit switch set consisting of: - 2 Limit switches - 4 Screws - 4 Washers	198.000.140	91.-
9 Position indicator	198.800.899	5.-
Seal set consisting of: - 1 O-ring - 1 Sealing ring - 5 PT screws - 1 Shaft seal - 4 Screws - 4 Spring washers	198.000.139	116.-

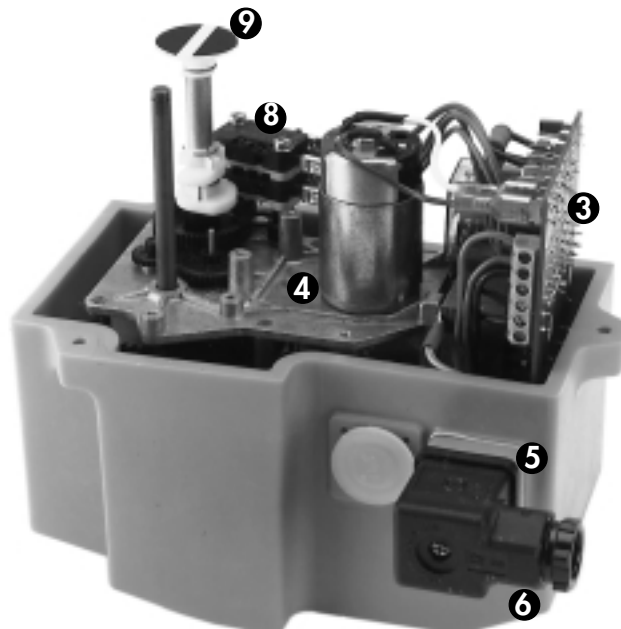
PVC Ball Valve Type 346 and Type 343 (manual valve) see manual valve price list



Spare parts list for EA 30 Actuator

(C)

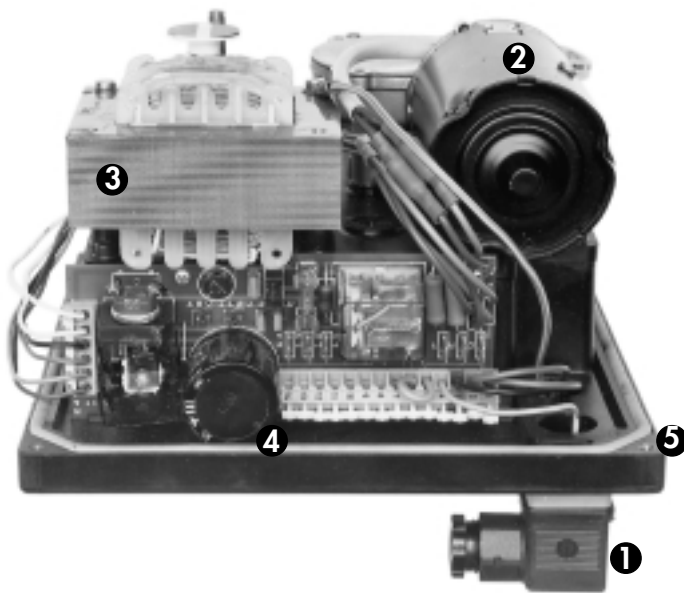
Description	Order number	\$
3 Power supply board 120/240VAC, 50-60Hz	198.150.586	273.-
3 Power supply board 24 VDC/24 V, 50-60Hz	198.150.587	220.-
4 Gear box and motor (irrespective of voltage)	198.802.310	537.-
5 EA DIN plug base kit	198.150.444	30.-
6 EA unit cable plug	198.804.621	7.-
EA unit 1/2" conduit plug (optional)	150.101.062	7.-
7 Cover set consisting of: - 1 Cover - 1 Showcase Inspection glass - 1 O-ring - 1 Clamp - 1 Seal - 5 PT-screws	198.000.138	283.-
8 Limit switch set consisting of: - 2 Limit switches - 4 Screws - 4 Washers	198.000.140	91.-
9 Position indicator	198.800.899	5.-
Seal set consisting of: - 1 O-ring - 1 Sealing ring - 5 PT screws - 1 Shaft seal - 4 Screws - 4 Spring washers	198.000.139	116.-
PVC Ball Valve Type 346 and Type 343 (manual valve) see manual valve price list		



Spare parts list for EA 41/50 Actuator

(C)

	Description	Order number	\$
1	EA DIN plug base	198.000.147	37.-
	EA unit cable plug	198.804.621	7.-
	EA unit 1/2" conduit plug (optional)	150.101.062	7.-
2	Motor with gear unit	198.802.700	337.-
3	Transformer	198.802.720	176.-
4	Power supply unit 120/240 VAC, 50-60 Hz	198.150.456	345.-
	Power supply unit 24 VDC/24 V, 50-60 Hz	198.150.457	331.-
5	Limit switch S1, S2	198.804.409	15.-
6	Housing seal	198.802.718	6.-
	Housing cover	198.802.703	99.-



Spare Parts for PE 22

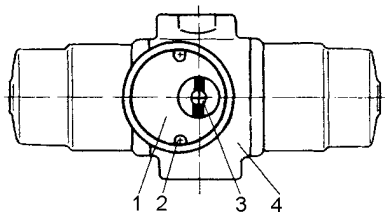
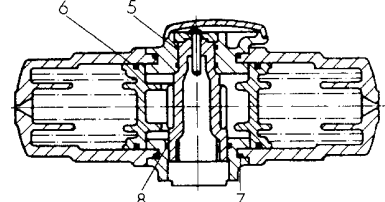
(C)

Part Number	199.190 ()		\$
PER22 Positioner/Controller Board	All	(225)	233.-
PEV22 Power Supply Board (EA 20/EA 30)	120/240 VAC/50-60Hz	(236)	318.-
PEV22 Power Supply Board (EA 20/EA 30)	24VDC-AC/50-60Hz	(237)	318.-
PEV122 Power Supply Board (EA 41/50)	120/240VAC/50-60Hz	(229)	387.-
PEV122 Power Supply Board (EA 41/50)	24 VDC-AC/50-60Hz	(230)	387.-

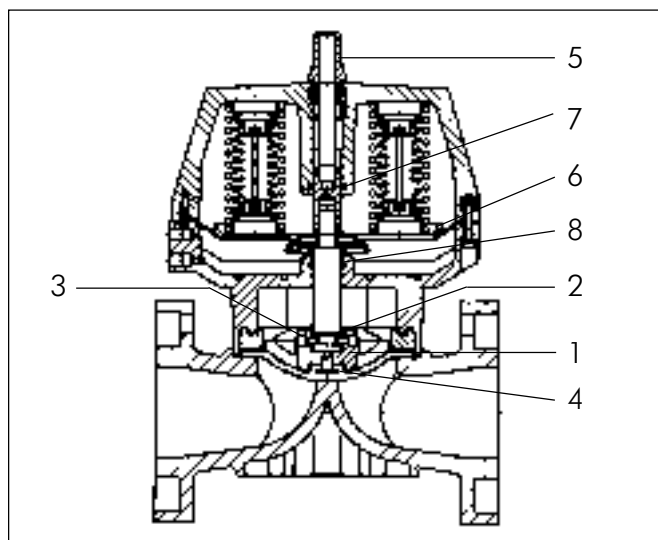
Pneumatic Actuator Spare Parts

Spare Parts PA10/PA20

(C)

<p>Cover Set</p> <p>consisting of:</p> <p>1 Type identification (1)</p> <p>2 Screws (2)</p> <p>1 Screw (3)</p> <p>1 Cover (4)</p>	<p>Part Number 198.000.196</p> 	<p>\$10.-</p>
<p>Cover Set</p> <p>consisting of:</p> <p>2 O-rings (5)</p> <p>2 O-rings (6)</p> <p>2 O-rings (7)</p> <p>1 O-rings (8)</p>	<p>Part Number 198.000.197</p> 	<p>\$12.-</p>

Spare parts for Type 025 DIASTAR



Pos.	Part	Pieces
1	Compressor, complete set for EPDM-diaphragm	1
2	Compression body	1
3	Diaphragm holder (2 1/2")	2
1	Compressor, complete set for PTFE-diaphragm	1
2	Compression body	1
3	Diaphragm holder (2 1/2")	2
4	Diaphragm EPDM	
4	Diaphragm PTFE	
5	Indicator cap	
6	Control diaphragms	
7		
8	with seal set	

Size		(C)		(C)		(A)		(A)	
d mm	ID Inch	Compression Set for EPDM Diaphragm		Compression Set for PTFE Diaphragm		Diaphragm EPDM		Diaphragm PTFE	
		Part Number		Part Number		Part Number		Part Number	
		198.000 ()	\$	198.000 ()	\$	161.481 ()	\$	161.311 ()	\$
20	1/2	(320)	25.-	(326)	33.-	(022)	14.-	(698)	87.-
25	3/4	(321)	25.-	(327)	33.-	(023)	17.-	(699)	96.-
32	1	(322)	26.-	(328)	35.-	(024)	22.-	(700)	96.-
40	1 1/4	(323)	26.-	(329)	35.-	(025)	22.-	(701)	96.-
50	1 1/2	(324)	29.-	(330)	39.-	(026)	31.-	(702)	139.-
63	2	(325)	29.-	(331)	39.-	(027)	44.-	(703)	159.-
75	2 1/2	(268)	134.-	(269)	147.-	(028)	46.-	161.480.240	295.-
90	3	(270)	75.-	(271)	75.-	(029)	47.-	161.480.241	311.-
110	4	(272)	134.-	(273)	134.-	(030)	83.-	161.480.242	364.-
160	6	(274)	183.-	(275)	183.-	161.482.754**	355.-	161.482.760**	1992.-

** special lead time: 15 days

Size		(C)		(C)		(C)		(C)	
d mm	ID Inch	Indicator Cap FO/DA		Indicator Cap FC		Control Diaphragms with seal set FO/DA		Control Diaphragms with seal set FC	
		Part Number		Part Number		Part Number		Part Number	
		198.806 ()	\$	198.806 ()	\$	198.000 ()	\$	198.000 ()	\$
20	1/2	(639)	2.-	(639)	2.-	(332)	9.-	(333)	9.-
25	3/4	(639)	2.-	(639)	2.-	(333)	9.-	(333)	9.-
32	1	(639)	2.-	(640)	2.-	(333)	9.-	(334)	10.-
40	1 1/4	(640)	2.-	(640)	2.-	(334)	10.-	(335)	10.-
50	1 1/2	(640)	2.-	(640)	2.-	(335)	10.-	(336)	12.-
63	2	(640)	2.-	(640)	2.-	(335)	10.-	(336)	12.-
75	2 1/2	(376)	20.-			(266)	75.-		
90	3	(376)	20.-			(266)	75.-		
110	4	(376)	20.-			(267)	107.-		
160	6	(376)	20.-			(267)	107.-		

Westlock Switches for Pneumatically Actuated Valves



Designs

- NEMA 4, 4X
NEMA 4, 4X, 7, 9; Class I Groups C&D, Class II, Groups E, F & G Divisions 1&2 Hazardous Location Service.
- UL listing and CSA certification
- Explosion proof
Class I, Groups C&D, Class II, Groups E, F & G Divisions 1&2 and Groups A&B Division 2.



Options

- BEACON II (for visual recognition)
Black & yellow std.
ANSI yellow (inherently hazardous)
ANSI green (liquid - low hazard)
ANSI blue (gas - low hazard)
ANSI red (fire quenching)
- Proximity sensors
- GO switches
- Analog output (1000 ohm or 4-2-mA)
- Solenoid wiring to common conduit
- Micro switch sensors
(2 SPDT, 4 SPDT, 2 DPDT, 2 SPST or 4 SPST)



Note: Please contact Customer Service for special pricing.

General Terms and Conditions of Sale

These Terms and Conditions (Rev. 6/2003) supercede all previous Terms and Conditions.

It is the responsibility of the Distributor, Dealer, Agent to provide a current copy of these Terms and Conditions to the Consumers of George Fischer products.

• Acceptance of Terms and Conditions

Acceptance by Customer of George Fischer, Inc.'s (hereinafter "Seller" or "GFI") offer of Products for sale is hereby expressly conditioned upon Customer's acceptance of these General Terms and Conditions of Sale and these General Terms and Conditions of Sale will be deemed accepted, as written, despite any language in Customer's purchase order and/or other documentation which is either conflicting or supplemental, unless promptly after receipt of this offer, Customer specifically advises Seller of each term and condition not so accepted and Seller accepts Customer's conflicting and/or supplemental term(s) in writing.

• Order Acceptance

Seller reserves the right to accept or reject any order. Possession of a price list by Customer does not constitute an offer to sell.

• Credit Approval/Minimum Order Charge

Customer credit approval is required prior to any shipments. The minimum order charge is \$100.00 net.

• List Price, Discount or Freight Charges

List prices, discount, and freight terms are subject to change without notice. All prices are F.O.B., Seller's factory or authorized warehouse at Seller's discretion. Products listed hereon will be invoiced at price prevailing at time of shipment.

• Standard Terms

Net 30, 2% 15 days from date the invoice is issued from GFI. **No unauthorized deductions allowed, such as deductions for pending Returned Materials Transactions that are subject to review.** GFI reserves the right to apply a finance charge to the balance of any past-due invoice (over 30 days from date of invoice) at a rate of 1.5% per month, 18% per annum. Invoices past due forty-five (45) days will be subject to review and account status may be put on hold.

• Mode of Shipment or Packaging

Seller reserves the right to ship orders in the most economical manner. However, where Customer requests special packaging or handling, any additional cost will be the responsibility of the Customer.

• Taxes

Any and all sales taxes, Manufacturer's taxes and/or other charges levied or imposed by any governmental authority, foreign or domestic, upon any merchandise sold or contracted to be sold shall be paid by Customer and added to the purchase price unless satisfactory and appropriate tax exemption certificates are supplied to the Seller.

• Cancellations or Add-ons

Cancellation or modifications of orders must be consented to by Manufacturer in writing. Since all orders are individually entered for processing immediately upon receipt, Seller reserves the right to charge back to the Customer costs incurred from either cancellation of the order, change of the order or of any item on the order. Seller also reserves the right to consider all order add-ons as new orders and subject to all terms and conditions. Products can only be added to orders the same day the order was entered. Distributors may cancel stock items that are **NOT** non-cancelable or non-returnable up to the day it ships.

• Product Changes

Seller reserves the right to alter, modify or redesign its products without any obligation to replace Products previously shipped.

• Delivery

Customer is advised that quoted delivery dates or schedules are based on estimates at the time of quotation and that Seller will devote its best efforts to meet such schedules. However, Seller assumes no liability for additional cost or damages resulting from late deliveries.

• Freight Terms

In the continental USA and Canada: Full freight will be paid on pipe, valve, and fitting orders \$1,500 net or more, except PVDF pipe in which full freight will be paid on orders of \$4,000 net or more. Freight allowed orders will be sent by a designated carrier of Seller's choice. Additional charges will be made for special handling and air freight when requested.

All Signet products are shipped F.O.B. factory. Unless otherwise specified, shipments are UPS surface; prepaid and added to the invoice.

• Transfer of Ownership

Title to merchandise passes at point of shipment. Claims for damaged merchandise should be made to carrier.

• Damage, Loss or Shortage Claims

Common carrier or motor freight shipment must be inspected for damage, loss or shortage upon receipt by consignee prior to acceptance from carrier.

Any damage or loss claims must be made to the carrier. Seller will not be liable in any manner for damage or loss caused to a shipment by a common carrier.

Shortage of material claims regardless of "mode of shipment" must be submitted in writing to Seller within fifteen (15) days of invoice date. In the event of such claims, Customer shall be required to make timely payment to Seller of any amount which is undisputed or not subject to such claims.

• Returned Materials – Restock and Evaluations

The standard restocking charge is 25%. Products denoted with a caret (^) symbol have a 40% restocking charge and products with an asterisk (*) symbol are non-cancelable/non-returnable. Only items identified on the current Master Distributor Price list shall be considered for returns and credits. All products qualifying for return are subject to review for marketability (quantities and stock movement) before issuance of an RMA number.

All merchandise returned for credit must have been purchased from George Fischer within the past twelve (12) months, and must be in original packaging (full carton quantities), in "like new," re-sellable, condition.

Credit will be allowed at the lowest price in effect during the previous twelve (12) months, unless a higher price can be substantiated by the distributor. The minimum acceptable return is \$100 net. **No deductions may be taken prior to GFI issuing a credit memo.**

All material returns must be accompanied by a valid GFI Return

Material Authorization (RMA) number. Obtain the RMA number by contacting the GFI Customer Service department. When requesting restock, the original purchase order number or GFI Sales Order number and date of purchase from GFI must be provided. When requesting an RMA for material evaluation, the customer must first complete a Material Safety Disclosure sheet and Request For Evaluation form; both are obtained from GFI Customer Service.

Material arriving at George Fischer without a valid RMA number will be returned to the customer/distributor, freight collect. RMA numbers must be clearly referenced on all shipping documents and shipping container.

All material returns must be received within thirty (30) days of the RMA issuance from GFI. **RMA numbers are void after 30 days.**

All material returns must be shipped freight prepaid. **No collect shipments will be accepted by George Fischer.** Restocking charges and prepaid freight do not apply to warranty defective merchandise or returns due to GFI order entry or shipping errors. **Seller must be advised of shipment errors within 15 days of shipping from GFI.**

• Force Majeure

Seller shall not be liable for any delays in making delivery where occasioned by strikes or difference with workmen or by any causes beyond the control of Seller, such as but not limited to fires, floods, accidents, action of any governmental authority, or shortages of labor, energy, raw materials, production facilities or transportation. Where delays or failures of delivery are caused by labor difficulties, Seller shall not be obligated to seek or obtain any settlement which, in Seller's sole judgment is not in Seller's best interest.

• WARRANTY

Seller's Products are carefully inspected for manufacturing defects; however, it is not always possible to detect hidden defects.

Said Products are warranted only to the extent that Seller will repair or replace without charge. (No credits will be issued.) Products proved to have manufacturing defects within six (6) months, Signet products twenty-four (24) months, of the date of tender of delivery thereof and provided Seller has been given an opportunity to inspect the Product alleged to be defective and the installation and/or use thereof. Seller does not warrant any Products obtained through an unauthorized Distributor, Dealer or Agent; therefore any and all warranties are void in the event that Seller's Products are obtained through an unauthorized Distributor, Dealer or Agent.

• LIMITATIONS OF REMEDY

Damages, warranties and liability in the event of any breach of warranty by seller, the exclusive remedy of the customer shall be the repair or replacement of the non-conforming goods in the manner and for the period of time as provided in the "warranty" section above. No warranty is included against any expense for removal, reinstallation or consequential damages of any nature arising from any defect. Seller shall not be liable for special, incidental or consequential damages, such as (but not limited to) damage or loss of other property or equipment, business interruption, or loss of profits or revenue. The warranties set out above are the only warranties made by seller and are expressly in lieu of all other warranties, expressed or implied, including the warranties of merchantability and fitness for a particular purpose. Any and all warranties implied by any course of dealing or usage of trade between the parties are expressly excluded. Any action for breach of any contract made by seller for the sale of goods must be commenced within twelve (12) months (Signet Products twenty-four (24) months) of seller's tender of delivery of the subject goods.