WINKLER STIEFEL
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Par Gel

Water Removal Filter Elements

Global Filtration Technology

PAR-GEL FILTER ELEMENTS ARE AN EFFECTIVE TOOL IN CONTROLLING WATER RELATED PROBLEMS IN HYDRAULIC POWER AND LUBRICATION SYSTEMS.

There is more to proper fluid maintenance than just removing particulate matter. You need to remove water as well. Parker has developed Par-Gel water removal elements to be used in combination with particulate filters to provide significant benefits.

- Less component wear, consequently less component generated contaminants.
- Significant reduction of costly downtime and replacement of failed components.
- Increased efficiency of the system, thereby improving machine productivity.
- Less frequent replacement and disposal of contaminated fluid.
- Reduced chance of catastrophic failure.

Water as a contaminant.

Whether you used a mineral-base or synthetic fluid, each will have a water saturation point. Above this point, the fluid cannot dissolve or hold any more water. This excessive water is referred to as ‘free’ or emulsified water. As little as .03% (300 ppm) by volume can saturate a hydraulic fluid.

Many mineral-base and synthetic fluids, unless specifically filtered or treated in some way, will contain levels of water above their saturation point.

Water is everywhere!

Storage and handling. Fluids are constantly exposed to water and water vapour while being handled and stored. For instance, outdoor storage of tanks and drums is common. Water settles on top of tanks and drums and infiltrates the container, or is introduced when the container is opened to add or remove fluid.

In-service. Water can get by worn cylinder and actuator seals, or through reservoir openings. Water can come in contact with these entry points through water based cutting fluids or when water and/or steam are used for cleaning.

Condensation is also a prime water source. As fluid cools in a reservoir, temperature drop condenses water vapour on inside surfaces, which in turn causes rust. Rust scale in the reservoir eventually becomes particulate contamination in the system.

Microbial growth as a contaminant.

Once water enters a system, growth of micro-organisms begins. Since water is one of the end products of the breakdown of hydrocarbon fluid, once started, the process is somewhat self-sustaining.

Slime is evidence of microbial growth, as is the apparent increase in viscosity of the fluid, obnoxious odour and discoloured fluid. The results are: short fluid life, degraded surface finish and rapid corrosion.

Water generated damage and operating problems.

- Corrosion
- Accelerated abrasive wear
- Bearing fatigue
- Additive breakdown
- Increased acid level
- Visosity variance
- Electrical conductivity
- Forms of water in fluid
- Dissolved water – below saturation point
- Free water – emulsified or in droplets*.

Water in the system creates oxides, slimes and resins. Corrosion is an obvious by-product and creates further contaminants in the system.

The effect is compounded, as you now have both particulate contaminant and water working together.

The particulate contamination can be as simple as rust flaking from reservoir walls. Anti-wear additives break down in the presence of water and form acids. The combination of water, heat and dissimilar metals encourages galvanic action. Pitted and corroded metal surfaces and finishes result.

Further complications occur as temperature drops and the fluid has less ability to hold water. As the freeze point is reached, ice crystals form, adversely affecting total system function. Operating functions may become slowed or erratic.

Electrical conductivity becomes a problem when water contamination weakens insulating properties of fluid (decreases dielctric kV strength).

Testing your fluid for water.

A simple ‘crackle test’ will tell you if there is water in your fluid. Simply take a metal dish or spoon with a small amount of fluid. Apply a flame under the container with a match. If bubbles rise and ‘crackle’ from the point of applied heat, you have free water.

ParTest™ fluid analysis. For complete analysis, Parker offers Par-Test fluid analysis. Your Parker representative can supply you with a fluid container, mailing carton and appropriate forms to identify your fluid and its use. An independent lab performs complete spectrometric analysis, particle counts, visosity and water content.

Results are sent directly to the requester.

* Excessive free water must be removed from the system before filtering is attempted. In systems with gross amounts of water (1% to 2% by volume), settling or vacuum dehydration should be considered before using Par-Gel filter elements.

Water Removal Filter Elements

Par◈Gel

Removing water.

Using a Par-Gel water removal element is an effective way of removing free water contamination from your hydraulic system. It is highly effective at removing free water from mineral-base and synthetic fluids.

The Par-Gel filter media is a highly absorbent copolymer laminate with an affinity for water. However, hydraulic or lubrication fluid passes freely through it and the water is bonded to the filter media.

Photo above shows 'dry' Par-Gel filter media and the same media swollen with absorbed water.

Parker technology and expertise at your disposal.

Choosing the correct filters can save money and minimise problems caused by particulate and water contaminants in hydraulic and lubricating fluids.

Parker provides hard data and advice on choosing from a wide range of filter configurations, flow patterns and flow pressure capabilities.

How many filter elements will I need?

Suppose you would like to remove water from contaminated oil stored in a 200 gallon tank. The tank is found to have 1000 ppm of water (very contaminated). The circulation rate will be 10 gpm for the 200 SUS fluid.

Example: How many single length Modulflow™ elements will be needed to reduce the water to normal saturation levels. To find the answer, use the conversion charts and capacity curves for the Modulflow element.

1. 1000 ppm start – 300 ppm finish = 700 ppm removed
2. 700 ppm water x 0.001 = .07%
   .07% x 200 gallons = .14 gallons water total
3. Use the capacity curve for Modulflow element P/N 927584.
   Capacity = 80cc at 200 SUS & 10 gpm to pressure drop of 25 psid. (See graph)
   $80cc \times 0.000264 \frac{gal}{CC} = 0.02$ gallons/element
4. $\frac{0.14 \text{ gallons total water}}{0.02 \text{ gallons/element}} = 7$ elements*

* The replacement value of this fluid may range from $600.00 to $1400.00 ($3 to $7 gallon). An estimated element cost of $50.00 each, the saving would be from $250.00 to $1050.00!

Using Par-Gel filter elements saves money in fluid and replacement component costs. Also, the frequency of fluid disposal and the problems associated with it are greatly reduced.

Filter capacity. There are no accepted and approved water capacity testing or reporting standards. Consequently, there is virtually no way to compare one element capacity with another. It is also difficult to simulate a specific application in testing...making it hard to predict field performance.

Why the discrepencies? Water removal media capacity is the result of the interplay among four variables: flow rate, viscosity, bypass setting and the media itself.

Here's an example: two identical elements, testing the same fluid, varying only the flow rate.

	Element A	Element A'
Flow Rate:	3 gpm	10 gpm
Viscosity:	75 SUS	75 SUS
Test Capacity:	425 ml	360 ml

This is a 15% reduction in capacity, due to changing only the flow rate! Now, look at what happens when the test flow rate is the same and the viscosity is changed.

	Element B	Element B'
Flow Rate:	20 gpm	20 gpm
Viscosity:	200 SUS	75 SUS
Test Capacity:	250 ml	550 ml

Twice the capacity can be achieved just by manipulating the test viscosity!

Naturally, having a lower bypass valve setting limits the capacity. Since the life of the element is measured in pressure drop, using higher bypass valve settings will increase apparent life (all other conditions equal).

We recommend 25 psid bypass valves to get adequate life from Par-Gel filter elements.

Capacity also depends on the media itself. That's why Parker spent two years researching the media used in Par-Gel filter elements. We tested all known media, and worked closely with our suppliers to achieve maximum water absorbency.

How we report:

Our goal is to give our customers usable data. Why show test results at a lower viscosity (65 SUS for example), if the typical application uses 200 SUS fluid? So, we report at 200 SUS to give typical field application capacity, and 75 SUS for competitive comparisons. But keep in mind when comparing, you still have to consider flow rate.

What it all means:

You deserve to know how an element will work for you in your applications. So, we test and report our data in such a way that it helps you predict element performance and life.

Be wary of claims that say... “this element holds one quart (or one gallon) of water”. What was the test flow rate? fluid viscosity? bypass valve setting? Was it run as a ‘single pass’ or ‘multipass’ test?

Rely on Parker to give you the facts and data you need. Our goal is to better protect your systems and components...and we start up-front by telling you what you need to know.

Is there any other way to do business?

Add it all up.

Broad selection, competitive prices, off-the-shelf availability, on-time delivery, high-efficiency filter media, reduced system contaminant and longer component life. When you add it all up, we think you’ll agree...

Conversion Factors

If You Have:	Multiply By:	To Get:
mg/l	0.00009	%
ppm	0.0001	%
ml	1.0	cc
cc	0.0338	fluid ounces
cc	0.00106	quarts
cc	0.000264	gallons

Typical Saturation Points

Fluid Type	PPM	%
Hydraulic	300	0.03
Lubrication	400	0.04
Transformer	50	0.005

Water Removal Filter Elements

Par◈Gel

Parker Par-Gel water removal filter elements are available in these standard Parker filter housings:

Fluid Model Series	Length	Element Part Number
40CN-1	Single	931412
40CN-2	Double	931414
80CN-1	Single	931416
80CN-2	Double	931418
Guardian®	Single	932019
Moduflow RF 2-1 (64)	Single	927584

IDEAL APPLICATIONS FOR PAR-GEL FILTER ELEMENTS

Guardian® Portable Filtration System

Filter Cart

Par Fit
Interchangeable
Filter Elements

Global Filtration Technology

TYPICAL APPLICATIONS

- Industrial Test Rigs
- Aircraft Ground Support Equipment
- Mobile Equipment
- Steel Mills
- Paper Mills
- Industrial & Mobile Equipment

An extensive range of competitively priced Parker quality elements allowing users to procure all their replacement elements from a single, well known and respected source regardless of original equipment manufacturer.

IMPORTANT INFORMATION

Parfit Selection Guide

The information contained in this guide is provided for the convenience of our customers and is as accurate as possible. Nonetheless, Parker Hannifin UK Ltd makes no guarantee, either expressed or implied, as to its accuracy.

All the cross-references shown are based on the latest manufacturers information and every attempt has been made to supply original factory information. Therefore, it is imperative that the correct, original manuacturer's name & part number is used for the cross-referencing.

Some manufacturers will change their elements from time to time, without changing their part numbers. Therefore, when a discrepancy in size or construction is evident, or the replacement element does not fit properly, do not use such elements, but contact Parker Hannifin UK Ltd, Filter Division Europe.

We cannot be held responsible for deviations caused by an OEM, between part numbers and actual elements.

Second generation replacement element numbers should not be used when cross-referencing an element. The variations in dimensions between replacement elements may eventually cause a misfit of an element in a filter housing.

Fluid Compatibility

In compliance with the original product specification Parker Par<>Fit elements include Nitrile (Buna-N) seals and are suitable for use with petroleum oils, hydraulic oils, vegetable oils, most water glycols, water/oil emulsions and other water based fluids.

For other fluids please consult Parker Filtration.

ELEMENT TESTING

Element Testing

PAR◇FIT replacement elements conform to the ISO international standards regarding collapse/burst resistance, fabrication integrity, material compatibility, flow fatigue characteristics and also to the internationally recognised multipass test. The multi-pass test is an industry standard recognized by ISO, ANSI, and NFPA for determining element ratings. A controlled amount of a standard test dust is injected into a system upstream of a test filter element. Particle counts are performed simultaneously both upstream and downstream of the filter element, measuring how many particles enter and exit the element. Since particle counts are performed for many different particle sizes, an element's efficiency at different particle sizes can be calculated. The multi-pass test yields the Beta (ß) ratio, and ultimately the efficiency of an element at various particle sizes.

$$ß(x) = \frac{\eta\ (Up)}{\eta\ (Down)}$$

where η = number of particles, at size c and above

Assuming that 10,000 particles greater than 10µm were counted upstream of the element, and 50 particles greater than 10µm were counted downstream, the resulting ß ratio would be:

$$ß(10) = \frac{10{,}000}{50} = 200$$

The practical value of the b ratio is that filtration efficiencies can be easily calculated. The efficiency of an element at a given particle size 'x' is given by:

$$1-\left\{\frac{1}{ß(x)}\right\}x100$$

So, if an element has a ß10 =200, then according to this equation, it is 99.5% efficient.

The following table calculates some efficiencies from b values using the same equation.

§(x)	Efficiency (%)
1.01	1
1.1	9
1.5	33
2	50
5	80
10	90
20	95
75	98.7
200	99.5
1000	99.9

The filtration industry is coming to accept a nominal rating as 50% efficient at removing a given particle size and an absolute rating as at least 98.6% efficient at removing a given particle size.

CONCEPT

Contamination causes most system failures

Designers and users of Hydraulic and Lubrication systems have proven that over 75% of system failures are as a direct result of contamination. The associated costs are staggering:

- Production loss (Downtime)
- Component Replacement
- More frequent fluid replacement (and disposal)
- Increased overall maintenance costs

Engineers are becoming increasingly aware of the need for high quality, correctly matched filtration, as a vital tool in reducing operating costs.

Cost-effective media selection

Because of the wide range of contaminants and the wide range of filter media available to control them, it is easy to under or over specify your system filtration, and either can prove expensive. Filter media which is too coarse permits dangerous contamination. Filter media which is too fine requires replacement too frequently, or if not changed causes filters to operate in the bypass mode, losing system protection.

The PAR-FIT concept

In the past, users of hydraulically powered machinery have been forced to buy replacement filter elements from either the machinery OEM or the filter manufacturer. Customer options have been extremely limited - either rely on the uncertain quality and service on offer from spurious manufacturers or pay top prices for recognised names.

Now you have the opportunity to source all replacement elements from one major supplier, at the right price. The Parker name is known throughout the hydraulic industry for quality and service. Parker Filtration have undertaken a substantial investment programme and can now offer a comprehensive range of filter elements, carefully designed to be interchangeable with leading manufacturer's products. Parker Filtration engineers, using the latest technology, have designed and tested the new range of elements to meet stringent performance criteria and dimensional tolerances to ensure that PAR-FIT elements can be specified with absolute confidence.

PAR-FIT element features

- Directly interchangeable with competitor elements
- Dimensional tolerances on length, diameter and sealing surfaces are controlled by stringent quality assurance systems
- PAR◇FIT match and often surpass the efficiency of original elements
- Corrosion resistant end-caps and fully bonded construction for maximum strength
- Conformity to all relevant ISO standards of Manufacture and Test
- Competitive pricing
- Full range of quality Parker media allows cost-effective matching of media to application
- Compatibility with most Hydraulic and Lubrication fluids
- Worldwide availability through the Parker Distribution Network

INTERCHANGEABE ELEMENTS FOR LISTED FILTERS

Manufacturer P/N	Parker P/N
ARGO	
P2062051	PR4474
P2092301	PR4473
P2093301	PR4461
P2121712	PR4465
P2121721	PR4466
P3051000	PR4469
P3051002	PR4475
P3061351	PR4462
P3062052	PR4463
P3092011	PR4464
V060706	PR4471
V2121708	PR4467
V2121736	PR4468
V3052008	PR4476
V3060708	PR4472
COOPERS	
AZH016	PR3371
AZH393	PR4021
AZH392	PR4022
CROSSLAND	
2045	FA57-25
1A9021	FA35-10
1A9023	FA35-25
7003A	170-L-123A
7005A	270-L-123A
7006A	270-L-123A
7009A	370-L-123A
7012A	370-L-223A
7013A	370-L-322A
7014A	370-L-323A
7021A	170-Z-123A
7028A	370-Z-123A
7029A	370-Z-223A
7030A	370-Z-223A
7031A	370-Z-323A
7033A	PR3374
7034A	PR3388
7036A	270-Z-220A
7037A	PR3383
7038A	270-Z-220A
7039A	370-Z-220A
7040A	370-Z-320A
7042A	270-L-123A
7043A	370-L-123A
7044A	370-L-223A
7045A	370-L-323A
Q751211	FA57-25
S28	FA35-10
S29	FA35-25
S58	FA57-10
S59	FA57-25
7051	PR3437Q
7052	PR3438Q
7053	PR2765Q
7054	PR3440Q
7055	PR3441Q
7056	PR2766Q
7062	TXX6A-10
7510	4A-1-10
7511	4A-2-10
7512	4A-3-10
7513	FA57-10
7514	FA35-10
7515	FA57-25
DONALDSON	
HFP55-0387	FA57-25
HFP55-0388	FA57-10
HFP55-1551	FA35-10
HFP55-2297	FA35-10
LFP17-0680	FA35-10
LFP17-1250	FA35-10
LFP55-3634	FA57-25
LFP55-5680	FA35-10
P15-1553	FA35-25
P16-2766	FA35-10
P16-3068	FA57-10
P16-3542	CG46-5
P16-3555	CG49-5
P16-3903	RK-H-0903A
P16-3910	RK-H-0912A
P16-4164	PR3437Q
P16-4166	PR3438Q
P16-4168	PR2765Q
P16-4170	PR2765Q
P16-4172	PR3440Q
P16-4174	PR3441Q
P16-4176	PR2766Q
P16-4178	PR2766Q
P16-4215	PR3453Q
P16-4217	PR3454Q
P16-4219	PR3456Q
P16-4221	PR3457Q
P16-4223	PR2781Q

Manufacturer P/N	Parker P/N
DONALDSON (Cont'd)	
P16-4225	PR2782Q
P16-4227	PR2785Q
P16-4229	PR2786Q
P16-4348	FA35-25
P16-4364	PR3437Q
P16-4365	PR3438Q
P16-4366	PR3439Q
P16-4367	PR2765Q
P16-4368	PR3440Q
P16-4369	PR3441Q
P16-4370	PR3442Q
P16-4371	PR2766Q
P16-4375	CG46-CC16
P16-4378	CG49-CC16
P16-4381	CG46-CC22
P16-4384	CG49-CC22
P16-4429	PR3453Q
P16-4430	PR3454Q
P16-4431	PR3456Q
P16-4432	PR3457Q
P16-4433	PR2781Q
P16-4434	PR2782Q
P16-4434	PR2782Q
P16-4435	PR2785Q
P16-4435	PR2785Q
P16-4436	PR2786Q
P16-4436	PR2786Q
P16-4561	R940-H-3912A
P16-4561	R940-H-3912A
P16-4562	R940-H-3912H
P16-4562	R940-H-3912H
P16-4563	R940-H-3925H
P16-4563	R940-H-3925A
P16-4564	R940-H-3925H
P16-4564	R940-H-3925H
P16-4565	PR3459Q
P16-4566	PR3459Q
P16-4567	PR3460Q
P16-4568	PR3460Q
P16-4574	PR2797Q
P16-4576	PR2798Q
P16-4578	PR2799Q
P16-4580	PR2797Q
P16-4581	PR2798Q
P16-4583	PR2780Q
P16-4585	PR2784Q
P16-4592	PR2761Q
P16-4594	PR2762Q
P16-4596	PR2763Q
P16-4602	PR2763Q
P16-5041	PR2745Q
P16-5043	PR2746Q
P16-5947	PR2749Q
P16-7270	PR2755Q
P16-7414	PR2757Q
P16-9445	PR2747Q
P16-9446	PR2748Q
P16-9449	PR2753Q
P16-9450	PR2754Q
P16-9797	PR2750Q
P16-9798	PR2752Q
P17-1047	PR2799Q
P17-1055	PR2798Q
EPPENSTEINER	
E400HL160K10LA	R160-H-BH10A
E400HL240H102LA	R241-H-BH15A
E400HL240H32LA	R241-H-BH03A
E400HL240K10LA	R241-H-BH10A
E400HL330H32LA	R331-H-BH03A
E400HL330K10LA	R331-H-BH10A
H370Z110-020 BN	370-Z-110
12150 P10	TXX3-10
12300 P10	TXW5A-GDL3
12200 P10	TXX6A-10
12250 P10	TXX8A-10
12400 P10	TXX8C-10
12600 P10	TXX10-10
12800 P10	TXX11-10
121000 P10	TXX12-10
121500 P10	TXX13-R-10
14450 P10	4A-1-10
14450 P10V05	4A-2-10
14450 P10V1	4A-3-10
167400H3LL-113RP	R740-H-0403A
167400H6LL-113RP	R740-H-0406A
167400H10LL-113RP	R740-H-0412A
167400H20LL-113RP	R740-H-0425A
167500H3LL-113RP	R750-H-0403A
167500H10LL-113RP	R750-H-0412A
167500H10LL-205SP	R750-H-0812A
167500H20LL-113RP	R750-H-0425A
167500H20LL-205SP	R750-H-0825A
167500H3LL-113RP	R750-H-0403A

Manufacturer P/N	Parker P/N
EPPENSTEINER (Cont'd)	
167500H3LL-205SP	R750-H-0803A
167500H6LL-113RP	R750-H-0406A
167500H6LL-205SP	R750-H-0806A
168200H10LL-325TP	R820-H-1312A
168200H20LL-325TP	R820-H-1325A
168200H3LL-325TP	R820-H-1303A
168200H6LL-325TP	R820-H-1306A
168300H10LL-205SP	PR3453Q
168300H10LL-428UP	PR3456Q
168300H10LL-981XP	PR3459Q
168300H20LL-205SP	PR3454Q
168300H20LL-428UP	PR3457Q
168300H20LL-981XP	PR3460Q
168300H3LL-205SP	PR3452Q
168300H3LL-428UP	PR3455Q
168300H3LL-981XP	PR3458Q
168300H6LL-205SP	PR2797Q
168300H6LL-428UP	PR2798Q
168300H6LL-981XP	PR2799Q
168800H10LL-235TP	R880-H-1312A
168800H10LL-428TP	PR3945Q
168800H20LL-235TP	R880-H-1325A
168800H20LL-428TP	PR3946Q
168800H3LL-235TP	R880-H-1303A
168800H3LL-428TP	PR3943Q
168800H6LL-235TP	R880-H-1306A
168800H6LL-428TP	PR3944Q
168900H10LL-428UP	PR4365Q
168900H20LL-428UP	PR4364Q
168900H3LL-428UP	PR4367Q
168900H6LL-428UP	PR4366Q
169020H10LL-115RP	PR3428Q
169020H10LL-205RP	PR3429Q
169020H20LL-115RP	PR3444Q
169020H20LL-205RP	PR3446Q
169020H3LL-115RP	PR3443Q
169020H3LL-205RP	PR3445Q
169020H6LL-115RP	PR2745Q
169020H6LL-205RP	PR2746Q
169021H10LL-115RP	PR3449Q
169021H10LL-205RP	R921-H-0815A
169021H20LL-115RP	PR3450Q
169021H20LL-205RP	R921-H-0815A
169021H3LL-115RP	PR3447Q
169021H3LL-205RP	R921-H-0803A
169021H6LL-115RP	PR3448Q
169400H10LL-325TP	PR2781Q
169400H10LL-650TP	PR2785Q
169400H20LL-325TP	PR2782Q
169400H20LL-650TP	PR2786Q
169400H3LL-325TP	PR2779Q
169400H3LL-650TP	PR2783Q
169400H6LL-325TP	PR2780Q
169400H6LL-650TP	PR2784Q
HYDAC	
0030D003BHHC	PR3035
0030D003BNHC	PR3031
0030D005BHHC	PR3036
0030D005BNHC	PR3032
0030D010BHHC	PR3037
0030D010BNHC	PR3033
0030D020BHHC	PR3038
0030D020BNHC	PR3034
0030R003BNHC	PR3222
0030R003P	PR3222
0030R005BNHC	PR3223
0030R005P	PR3223
0030R010BNHC	PR3224
0030R010P	PR3224
0030R020BNHC	PR3225
0030R020P	PR3225
0060D003BH	PR3064
0060D003BHHC	PR3064
0060D003BN	PR3056
0060D003BNHC	PR3056
0060D003P	PR3056
0060D003Y	PR3064
0060D005BH	PR3065
0060D005BHHC	PR3065
0060D005BN	PR3057
0060D005BNHC	PR3057
0060D005P	PR3057
0060D005Y	PR3065
0060D010BH	PR3066
0060D010BHHC	PR3066
0060D010BN	PR3058
0060D010BNHC	PR3058
0060D010P	PR3058
0060D010Y	PR3066
0060D020BH	PR3067
0060D020BHHC	PR3067
0060D020BN	PR3059
0060D020BNHC	PR3059

Manufacturer P/N	Parker P/N
HYDAC (Cont'd)	
0060D020P	PR3059
0060D020Y	PR3067
0060R003BN	PR3239
0060R003BNHC	PR3239
0060R003P	PR3239
0060R005BN	PR3240
0060R005BNHC	PR3240
0060R005P	PR3240
0060R010BN	PR3241
0060R010BNHC	PR3241
0060R010P	PR3241
0060R020BN	PR3242
0060R020BNHC	PR3242
0060R020P	PR3242
0110D003BH	PR3093
0110D003BHHC	PR3093
0110D003BN	PR3085
0110D003BNHC	PR3085
0110D003P	PR3085
0110D003Y	PR3093
0110D005BH	PR3094
0110D005BHHC	PR3094
0110D005BN	PR3086
0110D005BNHC	PR3086
0110D005P	PR3086
0110D005Y	PR3094
0110D010BH	PR3095
0110D010BHHC	PR3095
0110D010BN	PR3087
0110D010BNHC	PR3087
0110D010P	PR3087
0110D010Y	PR3095
0110D020BH	PR3096
0110D020BHHC	PR3096
0110D020BN	PR3088
0110D020BNHC	PR3088
0110D020P	PR3088
0110D020Y	PR3096
0110R003BN	PR3256
0110R003BNHC	PR3256
0110R003P	PR3256
0110R005BN	PR3257
0110R005BNHC	PR3257
0110R005P	PR3257
0110R010BN	PR3258
0110R010BNHC	PR3258
0110R010P	PR3258
0110R020BN	PR3259
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0110R020P	PR3259
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0160D005BH	PR3123
0160D005BHHC	PR3123
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0160D005Y	PR3123
0160D010BH	PR3124
0160D010BHHC	PR3124
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0160D010Y	PR3124
0160D020BH	PR3125
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0160D020P	PR3117
0160D020Y	PR3125
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0160R005P	PR3274
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0160R020P	PR3276
0240D003BH	PR3151
0240D003BHHC	PR3151
0240D003BN	PR3143
0240D003BNHC	PR3143
0240D003P	PR3143
0240D003Y	PR3151
0240D005BH	PR3152

INTERCHANGEABE ELEMENTS FOR LISTED FILTERS

Manufacturer P/N	Parker P/N
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0240D010BHHC	PR3153
0240D010BN	PR3144
0240D010BNHC	PR3145
0240D010P	PR3145
0240D010Y	PR3153
0240D020BH	PR3154
0240D020BHHC	PR3154
0240D020BN	PR3146
0240D020BNHC	PR3146
0240D020P	PR3146
0240D020Y	PR3154
0240R003BN	PR3290
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0330D003P	PR3172
0330D003Y	PR3180
0330D005BH	PR3181
0330D005BHHC	PR3181
0330D005BN	PR3173
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0330D005P	PR3173
0330D005Y	PR3181
0330D010BH	PR3182
0330D010BHHC	PR3182
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0500R010BNHC	934568
0500R020BNHC	934569
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0660D003BHHC	PR3209
0660D003BN	PR3201
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0660D003H	PR3209
0660D003P	PR3201
0660D003Y	PR3209
0660D005BH	PR3210
0660D005BHHC	PR3210
0660D005BN	PR3202
0660D005BNHC	PR3202
0660D005P	PR3202
0660D005Y	PR3210
0660D010BH	PR3211
0660D010BHHC	PR3211
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0660D010P	PR3203
0660D010Y	PR3211
0660D020BH	PR3212
0660D020BHHC	PR3212
0660D020BN	PR3204
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0660D020P	PR3204

Manufacturer P/N	Parker P/N
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0660R010BNHC	PR3326
0660R010P	PR3326
0660R020BN	PR3327
0660R020BNHC	PR3327
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1300R005BNHC	934478
1300R010BNHC	934236
1300R020BNHC	934479
160D020P	PR3117
2600R003BNHC	934570
2600R005BNHC	934571
2600R010BNHC	934234
2600R020BNHC	934572
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D616-002-6-03E	402526
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H370Z110020BN	PR3385
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H98018003BH	PR2757Q
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MF160101	PR4022
MFE16005BN2	PR3959
MFE160102	PR4437
MFE160103BN2	PR4438Q
MFE160105BN2	PR3962
MFE16010BN2	PR3960
MFE160110BN2	935169
MFE160110BN2	PR3963
MFE160120BN2	PR3964
MFE16020BN2	PR3961
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INTERNORMAN	
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020110D20VGHRHCPE	R111-H-BH15A
020160D03VG30HCPE	R160-H-BH03A
020160D03VGHRHCPE	R161-H-BH03A
020160D05VG30HCPE	R160-H-BH05A
020160D10VG30HCPE	R160-H-BH10A
020160D10VGHRHCPE	R161-H-BH15A
020160D20VG30HCPE	R160-H-BH20A
020160D20VGHRHCPE	R161-H-BH15A
020240D03VG30HCPE	R240-H-BH03A
020240D03VGHRHCPE	R241-H-BH03A
020240D05VG30HCPE	R240-H-BH05A
020240D10VG30HCPE	R240-H-BH10A
020240D10VGHRHCPE	R241-H-BH15A
020240D20VG30HCPE	R240-H-BH20A
020240D20VGHRHCPE	R241-H-BH15A
020330D03VG30HCPPE	R330-H-BH03A
020330D03VGHRHCPPE	R331-H-BH03A
020330D05VG30HCPPE	R330-H-BH05A
020330D10VG30HCPPE	R330-H-BH10A
020330D10VGHRHCPPE	R331-H-BH15A
020330D20VG30HCPPE	R330-H-BH20A
020330D20VGHRHCPPE	R331-H-BH15A
020660D03VG30HCPE	R661-H-BH03A

Manufacturer P/N	Parker P/N
INTERNORMAN (Cont'd)	
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020660D05VG30HCPE	R660-H-BH03A
020660D10VG30HCPE	R661-H-BH15A
020660D10VGHRHCPE	R660-H-BH05A
020660D20VG30HCPE	R661-H-BH15A
020660D20VGHRHCPE	R660-H-BH10A
LHA	
150Z2FFA	150-Z-2FFA
150Z2FFB	150-Z-2FFB
150Z2FFH	150-Z-2FFH
SPE 16-10	PR4021
SPE 52-10	PR4022
SPE-15-10	FA35-10
SPE15-25	FA35-25
SPE-50-10	FA57-10
SPE-50-25	FA57-25
SPE-50-BTA-3	R750-H-0403A
SPE-50-BTA-3	PR3960
SPE-60-10	FA511-10
SPE-60-25	FA511-25
SPE-60-BTA-12	PR3963
SPE-60-BTA-3	PR4438
TTE-30-10	4A-3-10
MAHLE	
852126Mic10	PR4381
852126SMVST10	PR4382
852435SM10	PR4375
852435SM25	PR4374
852436SM10	PR4377
852436SM25	PR4376
852761Mic10	PR4378
852761SM10	PR4380
852761SM25	PR4379
9313204	PR3430Q
9313206	PR3440Q
9313208	PR2762Q
9313210	PR3441Q
9313212	PR2764Q
9313214	PR2766Q
93132168	PR3443Q
9313220	PR3444Q
9313222	PR2746Q
9313224	PR3446Q
9313257	PR3445Q
93140013	PR2797Q
9314007	PR3454Q
9314349	PR3447Q
9314351	PR3448Q
9314358	PR3449Q
9314785	PR3455Q
9314797	PR3451Q
9314799	PR2763Q
93148034	PR3461Q
93148056	PR3466Q
93148078	PR3463Q
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93174901	PR3458Q
9325833	PR2745Q
9326796	PR3453Q
9326797	PR3456Q
9326802	PR3438Q
9326803	PR3439Q
9326810	PR3437Q
G757	370-L-223A
HC6	FA35-10
HX1	FA35-25
HX7	TXX5-10
OC22	FA57-25
Pi1005Mic25	PR2829
Pi1008Mic25	PR2837
Pi1011Mic25	PR2845
Pi1015Mic25	PR2853
Pi1030Mic25	PR2861
Pi1045Mic25	PR2869
Pi1105Mic10	PR2828
Pi1108Mic10	PR2836
Pi1111Mic10	PR2844
Pi1115Mic10	PR2852
Pi1130Mic10	PR2860
Pi1145Mic10	PR2868
Pi2105SM3	PR2830
Pi2108SM3	PR2838
Pi2111SM3	PR2846
Pi2115SM3	PR2854
Pi2130SM3	PR2862
Pi2145SM3	PR2870
Pi2205SMVST3	PR2833
Pi2208SMVST3	PR2841
Pi2211SMVST3	PR2849
Pi2215SMVST3	PR2857
Pi2230SMVST3	PR2865
Pi2245SMVST3	PR2873

INTERCHANGEABE ELEMENTS FOR LISTED FILTERS

Manufacturer P/N	Parker P/N
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Pi3108SM10	PR2839
Pi3111SM10	PR2847
Pi3115SM10	PR2855
Pi3130SM10	PR2863
Pi3145SM10	PR2871
Pi3205SMVST10	PR2834
Pi3208SMVST10	PR2842
Pi3211SMVST10	PR2850
Pi3215SMVST10	PR2858
Pi3230SMVST10	PR2866
Pi3245SMVST10	PR2874
Pi4105SM25	PR2832
Pi4108SM25	PR2840
Pi4111SM25	PR2848
Pi4115SM25	PR2856
Pi4130SM25	PR2864
Pi4145SM25	PR2872
Pi4205SMVST25	PR2835
Pi4208SMVST25	PR2843
Pi4211SMVST25	PR2851
Pi4215SMVST25	PR2859
Pi4230smVST25	PR2867
Pi4230SMVST25	PR2867
Pi4245smVST25	PR2875
Pi4245SMVST25	PR2875
MP Filtri	
CG050A03A	935163
CG050A06A	935164
CG050A10A	935165
CG050A25A	935166
CG100A06A	PR3959
CG100A10A	PR3960
CG100A25A	PR3961
CG100P25A	PR4437
CG150A03A	PR4438
CG150A06A	PR3962
CG150A10A	PR3963
CG150A10A	935169
CG150A25A	PR3964
CS-100-P10-A	PR4022
CS-50-P10-A	PR4021
CSD 50 D03	CG46-CC5
CSD 50 D05	CG46-CC16
CSD 50 D10	CG46-CC22
CSD 70 D03	CG49-CC5
CSD 70 D06	CG49-CC16
CSD 70 D10	CG49-CC22
CSD 70 PO5RR	CG49-5
CSGW-150-P10-A	FA511-10W
CSGW-50-P10-A	FA35-10W
CSG 100-A03A	R750-H-0403A
CSG 100-A06A	PR3959
CSG 100-A10A	PR3960
CSG 100-A25A	PR3961
CSG 100-P10A	FA57-10
CSG 100-P25A	FA57-25
CSG 150-A03A	PR4438
CSG 150-A06A	PR3962
CSG 150-A10A	PR3963
CSG 150-A25A	PR3964
CSG 150-P10A	FA511-10
CSG 150-P25A	FA511-25
CSG 50-A03A	FA65-49
CSG 50-A06A	FA65-49
CSG 50-A10A	FA35-CC10
CSG 50-A25A	FA35-CC25
CSG 50-P10A	FA35-10
CSG 50-P10AN	FA35-10
CSG 50-P25A	FA35-25
CSG 50-P25AN	FA35-25
CSG 50-10A	FA35-CC10
CSG 50-103	FA65-49
PALL	
HC2206FKS3H	PR3058
HC2206FKS6H	PR3087
HC2206FKT3H	PR3059
HC2206FKT6H	PR3088
HC2207FKP3H	PR3064
HC2207FKP6H	PR3093
HC2207FKT3H	PR3067
HC2207FKT6H	PR3096
HC2216FKN3H	PR3115
HC2216FKN6H	PR3144
HC2216FKP3H	PR3114
HC2216FKP6H	PR3143
HC2216FKS3H	PR3116
HC2216FKS6H	PR3145
HC2216FKT3H	PR3117
HC2206FKT6H	PR3146
HC2217FKP3H	PR3122
HC2217FKP6H	PR3151
HC2217FKT3H	PR3125

Manufacturer P/N	Parker P/N
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HC2233FKN6H	PR3173
HC2233FKP13H	PR3201
HC2233FKP6H	PR3172
HC2233FKS13H	PR3203
HC2233FKS6H	PR3174
HC2233FKT13H	PR3204
HC2233FKT6H	PR3175
HC2235 FKS 6	PR2855
HC2235 FKS 10	PR2863
HC2235 FKS 15	PR2871
HC2237FDP13H	PR3209
HC2237FDP6H	PR3180
HC2237FDT13H	PR3212
HC2237FDT6H	PR3183
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HC6500FKN26H	PR4354Q
HC6500FKN8H	PR4346Q
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HC6500FKP26H	PR4355Q
HC6500FKP8H	PR4347Q
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HC6500FKT26H	PR4352Q
HC6500FKT8H	PR4344Q
HC7400SKN4H	935164
HC7400SKP4H	935163
HC7400SKS4H	935165
HC7400SKT4H	935166
HC7500SDJ4H	PR4437
HC7500SDS8H	935169
HC7500SDS8H	PR3963
HC7500SKN4H	PR3959
HC7500SKN8H	PR3962
HC7500SKP8H	PR4438
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HC8300FKN8H	PR2797Q
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HC8300FKP8H	PR3452Q
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HC8300FKS8H	PR3453Q
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HC8700FKP4H	PR4453Q
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HC8700FKS8H	PR4459Q
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HC9020FKN8H	PR2746Q
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HC9020FKS8H	PR3429Q
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HC9021FDP4H	PR3447Q
HC9021FDP8H	PR3449Q
HC9021FDT4H	PR3448Q
HC9021FDT8H	PR3450Q
HC9400FKN13H	PR2780Q
HC9400FKN26H	PR2784Q
HC9400FKP13H	PR2779Q
HC9400FKP26H	PR2783Q
HC9400FKS13H	PR2781Q
HC9400FKS26H	PR2785Q
HC9400FKT13H	PR2782Q
HC2206FKN3H	PR3057
HC2206FKN6H	PR3086
HC2206FKP3H	PR3056
HC2206FKP6H	PR3085
HC9400FKT26H	PR2786Q
HC9500SUJ4H	926169
HC9600EOS13H	PR4481
HC9600FKN13H	PR2763Q
HC9600FKN16H	PR2764Q
HC9600FKN4H	PR2761Q
HC9600FKN8H	PR2762Q
HC9600FKP13H	PR3451Q
HC9600FKP16H	PR3430Q
HC9600FKP4H	PR3435Q
HC9600FKP8H	PR3436Q
HC9600FKS13H	PR3439Q
HC9600FKS16H	PR2765Q
HC9600FKS4H	PR3437Q
HC9600FKS8H	PR3438Q
HC9600FKT13H	PR3442Q
HC9600FKT16H	PR2766Q
HC9600FKT4H	PR3440Q
HC9600FKT8H	PR3441Q
HC9601FDP13H	PR3465Q
HC9601FDP16H	PR3467Q
HC9601FDP4H	PR3461Q
HC9601FDP8H	PR3463Q
HC9601FDT13H	PR3466Q
HC9601FDT16H	PR3468Q
HC9601FDT4H	PR3462Q
HC9601FDT8H	PR3464Q
HC9650FKN16H	PR3952Q
HC9650FKN8H	PR3948Q
HC9650FKP16H	PR3951Q
HC9650FKP8H	PR3947Q
HC9650FKS16H	PR3953Q
HC9650FKS8H	PR3949Q
HC9650FKT16H	PR3954Q
HC9650FKT8H	PR3950Q
HC9651FDP16H	PR3957Q
HC9651FDP8H	PR3955Q
HC9651FDT16H	PR3958Q
HC9651FDT8H	PR3956Q
HC9730 FKS 5H	926567
HC9730 FKP 5H	926566
HC9700 FKS 9H	931437
HC9700 FKP 9H	925772
HC9735 FKS 9H	926557
HC9735 FKP 9H	926556
HC9800FKN4H	PR2748Q
HC9800FKN8H	PR2752Q
HC9800FKP4H	PR2747Q
HC9800FKP8H	PR2751Q
HC9800FKS4H	PR2749Q
HC9800FKS8H	PR2753Q
HC9800FKT4H	PR2750Q

Manufacturer P/N	Parker P/N
PALL (Cont'd)	
HC9800FKT8H	PR2754Q
HC9801FDP13H	PR2759Q
HC9801FDP4H	PR2755Q
HC9801FDP8H	PR2757Q
HC9801FDT13H	PR2760Q
HC9801FDT4H	PR2756Q
HC9801FDT8H	PR2758Q
PTI	
AHF3-060-GU-B	PR3467Q
CF-50-E-10	FA57-10
F25-10F	RK-H-0912A
F25-25F	RK-H-0925A
F25-3F	RK-H-0903A
F4E-030-BC-B	FA35-CC25
F4E-030-CC-B	FA35-10
F4E-030-DC-B	FA35-25
F4E-030-EC-B	FA35-10W
F4E-050-CC-B	FA57-10
F4E-050-DC-B	FA57-25
F4E-050-GC-B	R750-H-0403A
F4E-050-HC-B	FA57-CC10
F4E-050-JC-B	FA57-CC25
F4E-070-CC-B	FA511-10
F4E-070-DC-B	FA511-25
F4E-070-EC-B	FA511-10W
F4E-070-GC-B	PR4438
F4E-070-HC-B	FA511-CC10
F4E-070-JC-B	FA511-CC25
F4F-030-GC-B	R740-H-0403A
F4F-030-HC-B	R740-H-0412A
F4F-030-JC-B	R740-H-0425A
HF3-015-GF-B	PR3435Q
HF3-015-GU-B	PR3461Q
HF3-015-HF-B	PR3437Q
HF3-015-JF-B	PR3440Q
HF3-015-JU-B	R961-H-0415A
HF3-030-GF-B	PR3436Q
HF3-030-GU-B	PR3463Q
HF3-030-HF-B	PR3438Q
HF3-030-JF-B	PR3441Q
HF3-030-JU-B	R961-H-0815A
SCHROEDER	
76251	FA35-10
8T10	PR3438Q
8T3	PR2762Q
8TS1	PR3436Q
8TS3	PR2762Q
8TS7	PR3438Q
8TSX3	R961-H-0815A
A10	926567
A25	926568
A3	926566
BTS1	PR3436Q
BTS3	PR2762Q
BTS7	PR3438Q
G1139	RK-H-0925A
G1399	FA57-10
J10	926557
J25	926558
J3	926556
JS1	RJ-H-1803A
JS15	RJ-H-1825A
JS3	RJ-H-1806A
JS7	RJ-H-1810A
K10	925520
K10 (paper)	RK-H-0912A
K25	925773
K25 (paper)	RK-H-0925A
K3	925772
K3 (paper)	RK-H-0906A
KK10	RK-H-1812A
KK25	RK-H-1825A
KK3	RK-H-1803A
KS1	RK-H-0903A
KS15	RK-H-0925A
KS3	RK-H-0906A
KS7	RK-H-0912A
LF3580	FA35-10
M10	FA57-10
MS1	R750-H-0403A
MS15	PR3961
MS3-G1087	PR3959
MS7-G1087	PR3960
P10	FA35-10
RT1K10PY2	RK-H-0925A
SBF0060D010	PR3058
SBF0060D020	PR3059
SBF0060R010	PR3241
SBF0060R020	PR3242
SBF0110D010	PR3087
SBF0110D020	PR3088
SBF0110R010	PR3258
SBF0110R020	PR3259

INTERCHANGEABE ELEMENTS FOR LISTED FILTERS

Manufacturer P/N	Parker P/N
SCHROEDER (Cont'd)	
SBF0160D010	PR3116
SBF0160D020	PR3117
SBF0160R010	PR3275
SBF0160R020	PR3276
SBF0330D010	PR3174
SBF0330D020	PR3175
SBF0330R010	PR3309
SBF0330R020	PR3310
SBF74004S15B	935166
SBF74004S1B	935163
SBF74004S3B	935164
SBF74004S7B	935165
SBF75004S15B	PR3961
SBF75004S1B	PR4437
SBF75004S3B	PR3959
SBF75004S7B	PR3960
SBF75008S15B	PR3964
SBF75008S1B	PR4438
SBF75008S3B	PR3962
SBF75008S7B	935169
SBF75008S7B	PR3963
SBF830016S15B	PR3457Q
SBF830016S1B	PR3455Q
SBF830016S3B	PR2798Q
SBF830016S7B	PR3456Q
SBF830039S15B	PR3460Q
SBF830039S1B	PR3458Q
SBF830039S3B	PR2799Q
SBF830039S7B	PR3459Q
SBF83008S15B	PR3454Q
SBF83008S1B	PR3452Q
SBF83008S3B	PR2797Q
SBF83008S7B	PR3453Q
SBF840016S15B	PR4202Q
SBF840016S1B	PR4205Q
SBF840016S3B	PR4204Q
SBF840016S7B	PR4203Q
SBF840026S15B	PR4206Q
SBF840026S1B	PR4209Q
SBF840026S3B	PR4208Q
SBF840026S7B	PR4207Q
SBF840039S15B	PR4210Q
SBF840039S1B	PR4213Q
SBF840039S3B	PR4212Q
SBF840039S7B	PR4211Q
SBF84008S15B	PR4198Q
SBF84008S1B	PR4201Q
SBF84008S3B	PR4200Q
SBF84008S7B	PR4199Q
SBF850013S15B	PR4218Q
SBF850013S1B	PR4221Q
SBF850013S3B	PR4220Q
SBF850013S7B	PR4219Q
SBF850026S15B	PR4222Q
SBF850026S1B	PR4225Q
SBF850026S3B	PR4224Q
SBF850026S7B	PR4223Q
SBF85008S15B	PR4214Q
SBF85008S1B	PR4217Q
SBF85008S3B	PR4216Q
SBF85008S7B	PR4215Q
SBF880016S15B	PR3946Q
SBF880016S1B	PR3943Q
SBF880016S3B	PR3944Q
SBF880016S7B	PR3945Q
SBF890013S15B	PR4360Q
SBF890013S1B	PR4363Q
SBF890013S3B	PR4362Q
SBF890013S7B	PR4361Q
SBF890016S15B	PR4364Q
SBF890016S1B	PR4367Q
SBF890016S3B	PR4366Q
SBF890016S7B	PR4365Q
SBF890026S15B	PR4368Q
SBF890026S1B	PR3471Q
SBF890026S3B	PR3470Q
SBF890026S7B	PR3469Q
SBF89008S15B	PR4356Q
SBF89008S1B	PR4359Q
SBF89008S3B	PR4358Q
SBF89008S7B	PR4357Q
SBF90204S15B	PR3444Q
SBF90204S1B	PR3443Q
SBF90204S3B	PR2745Q
SBF90204S7B	PR3428Q
SBF90208S15B	PR3446Q
SBF90208S1B	PR3445Q
SBF90208S3B	PR2746Q
SBF90208S7B	PR3429Q
SBF90214S15B	PR3448Q
SBF90214S1B	PR3447Q
SBF90218S15B	PR3450Q
SBF90218S1B	PR3449Q

Manufacturer P/N	Parker P/N
SCHROEDER (Cont'd)	
SBF940013S15B	PR2782Q
SBF940013S1B	PR2779Q
SBF940013S3B	PR2780Q
SBF940013S7B	PR2781Q
SBF940026S15B	PR2786Q
SBF940026S1B	PR2783Q
SBF940026S3B	PR2784Q
SBF940026S7B	PR2785Q
SBF960013S15B	PR3442Q
SBF960013S1B	PR3451Q
SBF960013S3B	PR2763Q
SBF960013S7B	PR3439Q
SBF960016S15B	PR2766Q
SBF960016S1B	PR3430Q
SBF960016S3B	PR2764Q
SBF960016S7B	PR2765Q
SBF96004S15B	PR3440Q
SBF96004S1B	PR3435Q
SBF96004S3B	PR2761Q
SBF96004S7B	PR3437Q
SBF96008S15B	PR3441Q
SBF96008S1B	PR3436Q
SBF96008S3B	PR2762Q
SBF96008S7B	PR3438Q
SBF960113S15B	PR3466Q
SBF960113S1B	PR3465Q
SBF960116S15B	PR3468Q
SBF960116S1B	PR3467Q
SBF96014S15B	PR3462Q
SBF96014S1B	PR3461Q
SBF96018S15B	PR3464Q
SBF96018S1B	PR3463Q
SBF965016S15B	PR3954Q
SBF965016S1B	PR3951Q
SBF965016S3B	PR3952Q
SBF965016S7B	PR3953Q
SBF96508S15B	PR3950Q
SBF96508S1B	PR3947Q
SBF96508S3B	PR3948Q
SBF96508S7B	PR3949Q
SBF965116S15B	PR3958Q
SBF965116S1B	PR3957Q
SBF96518S15B	PR3956Q
SBF96518S1B	PR3955Q
SBF980013S15B	PR2760Q
SBF980013S1B	PR2759Q
SBF98004S15B	PR2750Q
SBF98004S15B	PR2756Q
SBF98004S1B	PR2747Q
SBF98004S1B	PR2755Q
SBF98004S3B	PR2748Q
SBF98004S7B	PR2749Q
SBF98008S15B	PR2754Q
SBF98008S15B	PR2758Q
SBF98008S1B	PR2751Q
SBF98008S1B	PR2757Q
SBF98008S3B	PR2752Q
SBF98008S7B	PR2753Q
VICKERS	
941107	FA57-10
941190	FA57-CC25
941191	FA57-10
942407	FA57-10
987815	FA57-25
987816	FA57-10
987817	FA57-CC25
OFRS60-X-10M	FA57-10
V0162B1V03	R160-H-BH03A
V0162B1V05	R160-H-BH05A
V0162B1V10	R160-H-BH10A
V0162B1V20	R160-H-BH20A
V0164B1H03	R161-H-BH03A
V0164B1H10	R161-H-BH15A
V0164B1H20	R161-H-BH15A
V0172B1C03	170-Z-120A
V0172B1C05	170-Z-121A
V0172B1C10	170-L-122A
V0172B1C20	170-L-123A
V0172B2C03	170-Z-220A
V0172B2C05	170-Z-221A
V0172B2C10	170-L-222A
V0172B2C20	170-L-223A
V0411 B5V05	PR2798Q
V0411 B5V10	PR3456Q
V0411 B8V05	PR2799Q
V0411 B8V10	PR3459Q
V0411B5L03	R831-H-1603A
V0411B5L05	R831-H-1606A
V0411B5L10	R831-H-1612A
V0411B5L20	R831-H-1625A
V0411B8C03	R830-H-3903A
V0411B8C05	R830-H-3906A
V0411B8C10	R830-H-3912A

Manufacturer P/N	Parker P/N
VICKERS (Cont'd)	
V0411B8L03	R831-H-3903A
V0411B8L05	R831-H-3906A
V0411B8L10	R831-H-3912A
V0411B8L20	R831-H-3925A
V4011 B5V03	PR3455Q
V4011 B8V03	PR3458Q
V6021 B1V03	PR3435Q
V6021 B1V05	PR2761Q
V6021 B1V10	PR3437Q
V6021 B2V03	PR3436Q
V6021 B2V05	PR2762Q
V6021 B2V10	PR3438Q
V6023 B1V03	PR3461Q
V6023 B2V03	PR3463Q
VTXW3DBC10	TXW3D-GDL10
VTXW3DBC10	TXW4-GDL10
VTXW3DBC10	TXW5A-GDL10
VTXW3DBC10	TXW5-GDL10
VTXW3DBC10	TXW8C-GDL10
VTXX02BC10	TXX2-10
VTXX02BC10	TXX3-10
VTXX02BC10	TXX3D-10
VTXX02BC10	TXX4-10
VTXX02BC10	TXX5-10
VTXX02BC10	TXX5A-10
VTXX02BC10	TXX8A-10
VTXX02BC10	TXX8C-10