



aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



# Truck Hydraulics

Innovative Products and System Solutions



ENGINEERING YOUR SUCCESS.

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# Parker Hannifin Corporation

## ENGINEERING YOUR SUCCESS.



A global Fortune 300 company with customers in 48 countries, Parker Hannifin is the world's leading supplier of hydraulic, pneumatic, and electro-mechanical systems and components. Customers rely on Parker for engineering excellence, world-class manufacturing and outstanding customer service to provide comprehensive application solutions that are second to none.



### The Parker Brand Promise

*Parker is the global leader in motion and control technologies, partnering with its customers to increase their productivity and profitability.*

- More than USD 12.1 billion in sales
- 298 plants worldwide
- 12,000 distributors
- 449,000 customers
- Serving 1,200 distinct markets
- Listed as PH on the New York Stock Exchange



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### Dedication to the truck industry

The Parker Hannifin Corporation is the most dynamic hydraulics motion and control components and solutions provider in the truck industry. Parker hydraulics technology and components, including Chelsea product offerings, makes Parker the leading choice to fill your heavy-duty truck needs. With our qualified factory support and network of distribution, being your single source supplier for components, kits and solutions has never been easier. Our truck hydraulics, market-focused staff is ready to assist you with application expertise, innovative designs and state-of-the-art manufacturing and engineering technology. Total systems capability makes Parker Hannifin today's complete supplier. Our customers can reduce their number of vendors without compromising quality, and buying from a single source saves both time and money.



# Truck Hydraulics

## Fluid Power/Truck Focus

Although Parker serves many industries including Aerospace, Construction, Agriculture, Mining, Automotive, Refrigeration, etc., we are exclusively concentrated on controlling fluid motion and pressure. We have created a market-focused hydraulics truck team to focus solely on the needs of the customers in various vocational truck markets.

## Total Systems From the Ground Up

Parker will assist you to determine your component(s) and/or systems requirements and help design a solution. We have the ability to capture exact system details through our high levels of data acquisition. Parker's staff of highly qualified engineers - application engineers, research and development teams, and system solution specialists, assures you that nobody knows truck hydraulic applications and products better than Parker. Parker's extensive breadth of product line allows for unlimited solution possibilities. Our worldwide network manufacturing and distribution facilities ensures quick deliver of your engineered solution, from components to kits to entire system solutions.

## Manufacturing

Parker continues to invest in our world class ISO 9001 certified manufacturing facilities. Our factories are equipped with the most modern technology to meet the demands of both quality and delivery. Our manufacturing is backed by a highly qualified engineering staff, working with today's latest tools and technology. This investment ensures that we maintain control of the manufacturing process and components, as well as the ability to look forward to new design ideas and solutions. Our truck hydraulic components are core to our business and investments. We do not outsource our components and solutions - we manufacture them.



# Parker's Value Proposition



## Parker's Value Proposition

Parker is the leading hydraulics supplier worldwide. We have a powerful reputation, unparalleled breadth of products, and world-class customer service. However, Parker's greatest distinguishing benefits can be found in its Value Proposition. Parker believes that it takes more than our great products, competitive prices, and on-time delivery to satisfy customer demands. It takes a commitment to provide exceptional value.

At Parker, value is not a commodity. It is the result of personal relationships built around the customer's use of Parker's extensive resources. Our customer services include:

- Truck Analysis and Troubleshooting
- Design-Engineering Support
- System Design
- Components Selection
- New Product Development
- Custom-Component Manufacturing
- Assemblies and Kits
- Sub-System Configuration
- Global Support and Service
- ISO Certification



# Value Added Programs



## Premier Customer Service

Parker's Premier Customer Service leads the industry in response. In addition to assured product quality, Parker provides engineering assistance, consolidated shipments, on-time delivery, extensive product information, and customer training. Our employees are empowered to do whatever it takes to meet or exceed customer expectations.

## Field Sales Team

Parker's highly trained truck hydraulics field sales force provides knowledgeable assistance to your product and system requirements, working hand in hand with your local Parker distributor. These experts are strategically located throughout the world.

## Kitting

In those instances where you require multiple components and sub-assemblies for a specific application, Parker offers the added benefit of a Kitting Service. Within a kit, everything you need is delivered in one convenient package, ready for installation.

## Training

Parker is recognized as the industry leader in the development and presentation of technical training for hydraulic and pneumatic technology. We offer complete and comprehensive texts, along with hands-on classroom opportunities to our employees, distributors, and customers. This includes web based training, On site training, and classroom training at various Parker locations. Our focus is on a practical approach to training, stressing active participation to increase students' confidence and understanding of motion control technology.



# Pumps - Fixed Displacement

## Gear

GPA



- Low noise
- High efficiency
- Bi-rotational
- Compact design
- Low weight / Aluminium body
- Pressure and suction connection in the rear and on the side



zp 45

Frame Size GPA	008	012	016	019
Displacement (cm <sup>3</sup> /rev)	8	12	16	19
Max cont pressure (bar)	250	250	250	230
Max operating speed (rpm)	2000	2000	2000	2000
Weight (kg)	4.6	4.8	5.1	5.3

GP1



- Low noise
- High efficiency
- Bi-rotational
- Exceptional durability
- Compact design
- Low weight
- Pressure and suction connection in the rear or on the side



zp 47

Frame Size GP1	016	019	023	029	036	041	046	050	060	070	080	100
Displacement (cm <sup>3</sup> /rev)	16	19	23	29	36	41	46	50	60	70	80	100
Max. cont. pressure (bar)	270	260	250	240	230	210	200	300	280	240	200	170
Max. operating speed (rpm)	2000	2000	2000	2000	2000	2000	2000	2000	1800	1700	1600	1400
Weight (kg)	6.0	6.3	6.7	7.1	7.5	7.8	8.1	12.5	13.0	13.5	14.0	15.0

# Pumps - Fixed Displacement

## Vane – SAE

**DENISON®**

Single



- 275 bar max pressure for T6CM. 240 bar for T6DM & T6EM
- Silent technology even under high pressure
- Wide range of displacements
- User friendly = easy conversions & evolutions
- Wide number of shafts available (SAE, ISO & specials)
- Double shaft seal option possible (T6CP, T6DP & T6EP)
- Rear drive train options available (SAE A, SAE B or SAE C)



zvp 01

Frame size TB	003	004	005	006	008	009	011	012
Displacement (cm <sup>3</sup> /rev)	8.8	12.8	16.0	20.7	26.1	31.5	35.6	39.7
Max cont pressure (bar)	175	175	175	175	175	175	175	175
Max operating speed <sup>1</sup> (rpm)	3500	3500	3400	3400	3300	3300	3200	3200
Input power <sup>2</sup> (kW)	3.3	5.8	7.2	9.2	11.5	13.9	15.7	17.5
Weight (kg)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

Frame size T6CM	B03	B05	B06	B08	B10	B12	B14	B17	B20	B22	B25	B28	B31
Displacement (cm <sup>3</sup> /rev)	10.8	17.2	21.3	26.4	34.1	37.1	46.0	58.3	63.8	70.3	79.3	88.8	100.0
Max cont pressure (bar)	240	240	240	240	240	240	240	240	240	240	240	160	160
Max operating speed <sup>1</sup> (rpm)	2800	2800	2800	2800	2800	2800	2800	2800	2800	2800	2500	2500	2500
Input power <sup>2</sup> (kW)	5.3 <sup>3)</sup>	12.2	14.7	17.7	22.3	24.1	29.5	36.9	40.2	44.1	49.5	48.5 <sup>4)</sup>	54.4 <sup>4)</sup>
Weight (kg)	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7

Frame size T6DM	B14	B17	B20	B24	B28	B31	B35	B38	B42	B45	B50
Displacement (cm <sup>3</sup> /rev)	47.6	58.2	66.0	79.5	89.7	98.3	111.0	120.3	136.0	145.7	158.0
Max cont pressure (bar)	210	210	210	210	210	210	210	210	210	210	160
Max operating speed <sup>1</sup> (rpm)	2500	2500	2500	2500	2500	2500	2500	2500	2200	2200	2200
Input power <sup>2</sup> (kW)	30.6	37.0	41.7	49.8	55.9	61.0	68.7	74.3	83.7	89.5	85.0 <sup>4)</sup>
Weight (kg)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0

Frame size T6EM	042	045	050	052	054	057	062	066	072
Displacement (cm <sup>3</sup> /rev)	132.3	142.4	158.5	164.8	171.0	183.3	196.7	213.3	227.1
Max cont pressure (bar)	210	210	210	210	210	210	210	210	210
Max operating speed <sup>1</sup> (rpm)	2200	2200	2200	2200	2200	2200	2200	2200	2200
Input power <sup>2</sup> (kW)	82.6	88.7	98.3	102.1	105.8	113.2	121.3	131.2	139.5
Weight (kg)	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3

1) Shaft speed for petroleum based fluids. For higher speeds, please contact Parker

2) 1500 rpm at 240 bar (except TB at 175 bar)

3) 140 bar

4) 210 bar max

Double



- Very low noise
- SAE or ISO standards
- One piece shaft (no internal torque limitations)
- Single common inlet
- 32 porting orientations available, 16 different double pump frames
- 819 displacement possibility (from 10.8 to 227.1 cm<sup>3</sup>/rev) with a max displacement of 454.2 cm<sup>3</sup>/rev
- Displacement combinations with above T6CM – T6DM & T6EM
- High power to weight ratio
- Wide range of options available = different shafts, threads, pilots
- Double shaft seal option available (T6CCP, T6DCP, T6ECP & T6EDP)
- Special shafts for tractors (J718c) T6CCMW, T6DCMW, T6ECM & T6EDM)

Triple



- Very low noise
- Single common inlet
- 128 porting orientations available
- 6766 displacement combinations (from 10.8 to 227.1 cm<sup>3</sup>/rev) with a max displacement of 552 cm<sup>3</sup>/rev
- One piece shaft (no internal torque limitation)
- High power to weight ratio
- 15 different triple pump frames available





# Pumps - Fixed Displacement

## Vane

Single & Double



- Special PTO shaft DIN 5462
- Silent technology
- Designed for radial load capability
- Flexibility in the porting
- Two pilot options = 4 bolts Ø 80.0 or 3 bolts Ø 52.0
- Maximum working pressure 275 bar
- Double pump available (T6GCC)

**DENISON®**



Frame size T6GC - T6ZC	B03	B05	B06	B08	B10	B12	B14	B17	B20	B22	B25	B28	B31
Displacement (cm <sup>3</sup> /rev)	10.8	17.2	21.3	26.4	34.1	37.1	46.0	58.3	63.8	70.3	79.3	88.8	100.0
Max cont pressure (bar)	240	240	240	240	240	240	240	240	240	240	240	160	160
Max operating speed <sup>1</sup> (rpm)	2800	2800	2800	2800	2800	2800	2800	2800	2800	2800	2500	2500	2500
Max input power <sup>2</sup> (kW)	-	12.2	14.7	17.7	22.3	24.1	29.5	36.9	40.2	44.1	49.5	48.5	54.4
Weight (kg)	T6GC = 18.0 T6ZC = 14.0 T6GCC = 27.2												

1) Shaft speed for petroleum based fluids. For higher speeds, please contact Parker Denison

2) 1500 rpm at 240 bar

## Vane – Cardan Shaft

Double – T6CCZ



- High radial & axial loads capabilities
- 3 different keyed shafts available
- One inlet
- Displacements = on P1 from 10 to 100 cm<sup>3</sup>/rev & P2 from 10 to 100 cm<sup>3</sup>/rev
- Pressure: up to 275 bar on P1 & P2

# Pumps - Fixed Displacement

## Axial Piston

F1



- Intermittent pressures up to 400 bar
- High power capability
- High shaft speed
- Low weight
- Bi-directional
- Volumetric efficiency 98 %
- Also SAE-B available sizes 25 up to 61



zp 16

Frame size F1	25	41	51	61	81	101
Displacement (cm <sup>3</sup> /rev)	25.6	40.9	51.1	59.5	81.6	102.9
Max cont pressure (bar)	350	350	350	350	350	350
Max operating speed* (rpm)	2700	2700	2700	2700	2300	2300
Max operating speed** (rpm)	2600	2400	2200	2200	2000	1800
Input torque at 350 bar (Nm)	142	227	284	331	453	572
Max cont input power (kW)	31	46	52	61	76	86
Weight (kg)	8.5	8.5	8.5	8.5	12.5	12.5

\* Unloaded pump (BPV)

\*\* In service 350 bar

F2



- Twin Flow / Dual displacement
- High power capability
- High shaft speed
- Easy to install
- Smart System Solutions
- Proven reliability



zp 16

Frame size F2	42/42	55/28	53/53	70/35	70/70
Displacement (cm <sup>3</sup> /rev)	43/41	54/52	55/28	69/36	68/68
Max cont pressure (bar)	350	350	350	350	300
Max operating speed* (rpm)	2550	2550	2550	2550	2550
Max operating speed** (rpm)	1800	1800	1800	1800	1650
Input torque at 350 bar (Nm)	467	461	589	583	648
Max cont input power (kW)	88	88	110	110	112
Weight (kg)	19	19	19	19	19

\* Unloaded pump (BPV)

\*\* In service 350 bar

T1



- Pressures up to 350 bar
- Shaft speed to 2300 rpm
- High overall efficiency
- Bi-directional
- Proven reliability



zp 16

Frame size T1	51	81	121
Displacement (cm <sup>3</sup> /rev)	50.0	81.5	118.5
Max cont pressure (bar)	200	200	200
Max operating speed* (rpm)	2300	2300	2300
Max operating speed** (rpm)	2100	2000	1600
Input torque at 200 bar (Nm)	158	258	375
Max cont input power (kW)	27	54	71
Weight (kg)	7.2	8.5	12.5

\* Unloaded pump (BPV)

\*\* In service 350 bar

# Pumps - Fixed Displacement

## Axial Piston

F11



- Pressures up to 420 bar
- High overall efficiency (low losses)
- Accept high external shaft loads
- Good resistance to vibrations and temperature shocks
- Proven reliability
- Easy to service
- CETOP, ISO and SAE versions available



zp 21

Frame size* F11	05	10	12	14	19	150	250
Displacement (cm <sup>3</sup> /rev)	4.9	9.8	12.5	14.3	19.0	150.0	242.0
Max cont pressure (bar)	350	350	350	350	350	350	350
Max operating speed ( rpm)	4600	4200	4000	3900	3500	1700	1500
Weight (kg)	5	7.5	8.2	8.3	11	70	77

\* Use F12 for medium range displacement

F12



- Pressures up to 480 bar
- Very high power capability
- High overall efficiency
- Small envelope size
- ISO, SAE and cartridge versions available
- Proven reliability
- Easy to service



zp 21

Frame size F12	30	40	60	80	90	110	125
Displacement (cm <sup>3</sup> /rev)	30.0	40.0	59.8	80.4	93.0	110.1	125
Max cont pressure (bar)	420	420	420	420	350	420	420
Max operating speed ( rpm)	3150	2870	2500	2300	2300	2200	2100
Weight (kg)	12	16.5	21	26	26	36	36

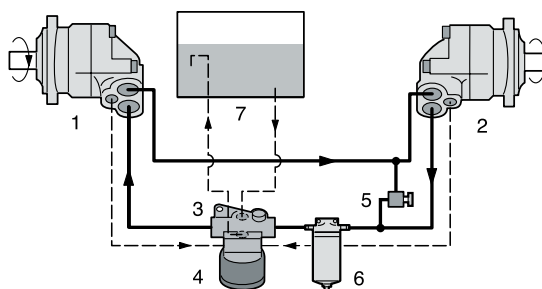
## Boost Unit

BLA



The boost unit provides filtration and make-up fluid to replace pump and motor volumetric losses, while maintaining sufficient pump inlet pressure to avoid cavitation. The semi-closed system could be built with a smaller and lighter reservoir at the same time as, the pump speed is possible to increase. The Boost Units BLA are available in two different sizes:

BLA 4 for flow 25–160 litres per minute,  
BLA 6 for flow 150–400 litres per minute.



1. Pump
2. Motor
3. Boost unit (with injector and nozzle)
4. Filter cartridge
5. Pressure relief valve
6. Full-flow filter (when required)
7. Reservoir

# Pumps - Variable Displacement

## Axial Piston

VP1



- Intermittent pressure up to 400 bar
- Suitable for all load-sensing systems
- Splined shaft DIN 5462
- Light and compact
- Mounting flange and shaft meet the ISO Standard
- Strong and reliable
- Less energy – less fuel – less heat



zp 16

Frame size* VP1	45	75	95	120
Displacement (cm <sup>3</sup> /rev)	45	75	95	120
Max cont pressure (bar)	350	350	400	360
Max operating speed (rpm)	2400*	2200*	2200**	1900*
Input power (kW)	63	96	139	137
Weight (kg)	27	27	27	27

\* 2 1/2" suction line    \*\* 3" suction line

**DENISON®**

## Axial Piston & Fixed Vane Combination

Double &amp; Triple



- Variable piston & vane pump combination
- Wide range of displacements:
  - Variable piston unit of 42 cm<sup>3</sup>/rev (SAE B) or 62 cm<sup>3</sup>/rev (SAE C)
  - Vane unit from 6 cm<sup>3</sup>/rev to 158 cm<sup>3</sup>/rev
- One inlet, one shaft (no internal torque limitations)
- Pressure controls (standard, ventable & ventable by electronic valve, load sensing)
- Very compact unit
- Splined & keyed shafts available
- 10 frame size available

# Motors - Fixed Displacement

## Vane

Fan – M5



- Heavy duty bearing
- High overall efficiency
- Integrated valves possible (anti cavitation check, proportional pressure relief valve, ...)
- Low noise
- Bi-rotational technology
- Internal or external drain possible with the uni-rotational option

**DENISON®**



zvp 01

Frame size M5AF	006	010	012	016	018	025	M5BF	012	018	023	028	036	045	050
Displacement (cm <sup>3</sup> /rev)	6.3	10.0	12.5	16.0	18.0	25.0		12.0	18.0	23.0	28.0	36.0	45.0	50.0
Max cont pressure (bar)	300	300	300	300	300	280		290	290	290	290	290	260	260
Max operating speed <sup>1</sup> (rpm)	4000	4000	4000	4000	4000	2500		4000	4000	3000	3000	3000	2500	2500
Max output torque <sup>2</sup> (Nm)	26.1	43.8	55.7	72.4	82.0	107.5		50.6	81.2	117.1	132.1	172.8	190.0	211.0
Output power <sup>2</sup> (kW)	5.5	9.1	11.7	15.1	17.1	22.5		10.6	17.0	24.5	27.7	36.2	39.8	44.0
Weight (kg)	15.0	15.0	15.0	15.0	15.0	15.0		18.5	18.5	18.5	18.5	18.5	18.5	18.5

1) Max shaft speed at max pressure

2) Output at 2000 rpm, 24 cSt & M5B\* at 320 bar, 045 & 050 at 280 bar, M5AF at 300 bar

## Gerotor

TE



- High volumetric efficiency
- Long life
- Full flow spline cooling
- High pressure shaft seal
- High flow shaft seal cooling
- High starting torque
- High side load capacity
- Balanced performance in both directions of rotation



zm 03

Frame size TE	0036	0045	0050	0065	0080	0100	0130	0165	0195	0230	0260	0295
Displacement (cm <sup>3</sup> /rev)	36	41	49	65	82	98	130	163	195	228	260	293
Max cont pressure (bar)	140	140	140	140	140	140	140	140	140	120	110	100
Max operating speed (rpm)	1141	1024	1020	877	695	582	438	348	292	328	287	256
Max cont output torque (Nm)	55	71	90	125	160	190	255	310	390	380	400	428
Weight. code L and H (kg)	6.7	6.8	6.9	7.0	7.1	7.2	7.6	7.8	8.1	8.3	8.6	8.8

Frame size TE	0330	0365	0390
Displacement (cm <sup>3</sup> /rev)	328	370	392
Max cont pressure (bar)	100	95	85
Max operating speed (rpm)	228	203	191
Max cont output torque (Nm)	443	467	445
Weight. code L and H (kg)	9.1	9.4	9.6

TG



- High volumetric efficiency
- Long life
- Full flow spline cooling
- High pressure shaft seal
- High flow shaft seal cooling
- High starting torque
- High side load capacity



zm 06

Frame size TG	0140	0170	0195	0240	0280	0310	0335	0405	0475	0530	0625	0785	0960
Displacement (cm <sup>3</sup> /rev)	141	169	195	238	280	310	337	405	477	528	623	786	959
Max cont pressure (bar)	207	207	207	207	207	207	207	172	138	138	121	103	69
Max operating speed (rpm)	660	554	477	393	334	303	277	232	237	213	182	143	118
Max cont output torque (Nm)	390	475	555	675	795	924	965	940	885	980	985	1045	775
Weight code H and V (kg)	14.6	14.8	15.1	15.5	15.9	16.1	16.3	16.9	17.5	18.3	19.0	20.5	22.2

# Motors - Fixed Displacement

## Gerotor

TK



- High volumetric efficiency
- Flow through internal spline and shaft seal cooling
- High pressure shaft seal / no drainline
- High starting torque
- High side load capacity
- Long life



zm 08

Frame size TK	0250	0315	0400	0500	0630	0800	1000
Displacement (cm <sup>3</sup> /rev)	250	315	400	500	630	800	1000
Max cont pressure (bar)	241	241	207	207	207	190	172
Max operating speed (rpm)	523	413	373	298	237	276	218
Max cont output torque (Nm)	814	1029	1153	1439	1617	1916	2413
Weight (kg)	30.8	31.4	32.3	33.2	34.5	36.0	37.9

## Axial Piston

F1



- Pressures up to 350 bar
- Positive synchronization with timing gear
- Shaft end and mounting flange meet the ISO standard for all sizes
- Very low weight
- High overall efficiency withstand high acceleration



zp 16

Frame size F1	25-M	41-M	51-M	61-M	81-M	101-M	121-M
Displacement (cm <sup>3</sup> /rev)	25.6	40.9	51.1	59.5	81.6	102.9	118.5
Max cont pressure (bar)	250	250	250	250	250	250	250
Max operating speed (rpm)	3000	2700	2400	2200	2000	1800	1700
Output torque at 200 bar (Nm)	81	130	162	189	259	327	376
Output power (kW)	20	27	31	34	41	48	51
Weight (kg)	8.5	8.5	8.5	8.5	12.5	12.5	12.5

F11



- Very high operating speeds and fast accelerations
- Anti cavitation valve available
- Pressures up to 420 bar
- High overall efficiency (low losses)
- Accept high external shaft loads
- Good resistance to vibrations and temperature shocks
- Proven reliability
- Easy to service
- CETOP, ISO and SAE versions available



zp 21

Frame size* F11	05	10	12	14	19	150	250
Displacement (cm <sup>3</sup> /rev)	4.9	9.8	12.5	14.3	19.0	150.0	242.0
Max cont pressure (bar)	350	350	350	350	350	350	350
Max operating speed (rpm)	12800	10200	9400	9000	8100	3200	2700
Output torque at 100 bar (Nm)	7.8	15.6	19.8	22.7	30.2	238	384
Weight (kg)	5	7.5	8.2	8.3	11	70	77

\* Use F12 for medium range displacement

F12



- Very high operating speeds and fast accelerations
- Pressures up to 480 bar
- High starting torque
- Very high power capability
- High overall efficiency
- Small envelope size
- Accessory valves available
- ISO, SAE and cartridge versions available
- Proven reliability
- Easy to service
- Super-shockless swing relief valve



zp 21

Frame size F12	30	40	60	80	90	110	125
Displacement (cm <sup>3</sup> /rev)	30.0	40.0	59.8	80.4	93.0	110.1	125
Max cont pressure (bar)	420	420	420	420	350	420	420
Max operating speed (rpm)	6700	6100	5300	4800	4600	4400	4200
Output torque at 100 bar (Nm)	47.6	63.5	94.9	128	148	175	198
Weight (kg)	12	16,5	21	26	26	36	36

# Compact Hydraulics

## Hand Pump Series 700

With Built-in 4-way Valve



- Pressures up to 175 bar
- 8.2 cm<sup>3</sup>/stroke
- Operating Range: -40 to +70 °C (Depending on Fluid Used)
- Very Compact Size
- Excellent Backup Power Supply
- Up to 61 cm Handle Available



zu 04

## Series 108



- AC or DC motor
- 4 pump sizes – up to 3 l/min
- Single or bidirectional rotation
- Fixed relief valve
- Locking check valves available on all models
- Variety of hydraulic circuits
- Reservoirs from 0.45 to 5.5 litres
- 241 bar rating



zu 01

## Series 165



- 0,75 kW, 12 VDC electric motor
- 3 pump sizes (0.52, 0.82 and 1.06 cm<sup>3</sup>/rev)
- Variety of circuits
- Many reservoir choices
- Up to 240 bar operating pressure
- Soft seat load hold check valves
- Vertical or horizontal mounting



zu 06

## Series 550



- Numerous motors to 1.5 kW
- 6 pump sizes – flows from 1 to 11.4 l/min
- Externally adjustable relief valve
- Variety of reservoirs
- Operating pressure to 210 bar
- NG6 pad or standard P and T ports



zs 02

# Power Take Off

## Allison World Transmissions Power Take-Offs

**CHELSEA®**

267



- Constant Mesh (non-shiftable) PTO ideal for applications requiring continuous power
- Five speed ratios and a wide range of output options available
- SuperTorque™ gears available for 20 % higher intermittent torque ratings
- No backlash to adjust
- Tapered cone bearings for high torque rating and long service life



zpto 01

Series 267	B	D	G	M	S	SB*	SD*	SG*	SM*	SS*
Standard Output Shaft Size	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
Intermittent Torque Rating (Nm)	325	325	300	265	250	545	529	488	431	359
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	24	23	21	19	18	29	28	26	23	19
at 1000 rpm of Output Shaft (kW)	48	46	43	38	36	57	56	51	45	38

\* SuperTorque™

277



- Exceeds the torque capacity of a 6-bolt PTO while offering the tighter sealing of a 10-bolt pattern
- Five speed ratios and a wide range of output options available
- SuperTorque™ gears available for 20 % higher intermittent torque ratings
- Electronic Overspeed Control available to protect driven equipment from overspeeding
- Tapered cone bearings for high torque rating and long service life

Series 277	B	D	G	M	S	SB*	SD*	SG*	SM*	SS*
Standard Output Shaft Size	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
Intermittent Torque Rating (Nm)	454	441	407	359	339	545	529	488	431	359
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	24	23	21	19	18	29	28	26	23	19
at 1000 rpm of Output Shaft (kW)	48	46	43	38	36	57	56	51	45	38

\* SuperTorque™

859



- Highest torque capacities of any PTO offered for the Allison World transmissions
- PTO Torque ratings from 386 to 780 Nm
- Electronic Overspeed Control available to protect driven equipment from overspeeding
- Advanced gear design for increased tooth-contact ratio for quieter operation

Series 859	G	J	M	R	S	T	W
Standard Output Shaft Size	1½" 10 spline with 1410 flange						
Intermittent Torque Rating (Nm)	780	712	664	563	522	475	386
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	41	37	35	30	27	25	20
at 1000 rpm of Output Shaft (kW)	82	75	70	59	55	50	41

867



- Constant Mesh (non-shiftable) PTO ideal for applications requiring continuous power
- Four speed ratios and five output options
- Torque ratings from 475 to 780 Nm

Series 867	G	M	R	T
Standard Output Shaft Size	1½" 10 spline with 1410 flange			
Intermittent Torque Rating (Nm)	780	664	563	475
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	41	35	30	25
at 1000 rpm of Output Shaft (kW)	82	70	59	50



# Power Take Off

## Powershift (“Shift-on-the-go”) Power Take Offs

**CHELSEA®**

230/231



- Optional Internal Self-Adjusting Shaft Brake
- Electric-over-air shifting
- 231 offers low profile housing for avoiding clearance problems
- Pressure lubrication option available for both units



zpto 01

Series 230/231	230 <sup>1)</sup> A,B,D,K & Q	230 <sup>2)</sup> A,B,D,K & Q	231 <sup>1)</sup> A,B,D,K & Q	231 <sup>2)</sup> A,B,D,K & Q
Standard Output Shaft Size	1¼"	1¼"	1¼"	1¼"
Intermittent Torque Rating (Nm)	407	339	339	305
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	21	18	18	16
at 1000 rpm of Output Shaft (kW)	43	36	36	32

<sup>1)</sup> With Pressure Lube <sup>2)</sup> With Standard Lube

236



- Optional Internal Self-Adjusting Shaft Brake
- Wide selection of input gears for virtually all currently produced transmissions
- Helical gears and optional pressure lubrication to extend PTO service life
- Inspection cover for adjusting backlash

Series 236	D, K & Q	U
Standard Output Shaft Size	1¼"	1¼"
Intermittent Torque Rating (Nm)	339	305
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	18	16
at 1000 rpm of Output Shaft (kW)	36	32

270/271



- Designed for automatic transmissions
- Electric-over-hydraulic shifting
- 271 offers low profile housing for avoiding clearance problems
- Pressure lubrication available for both units

Series 270/271	270 <sup>1)</sup> A, B, D & K	270 <sup>2)</sup> A, B, D & K	271 <sup>3)</sup> A, B, D & K
Standard Output Shaft Size	1¼"	1¼"	1¼"
Intermittent Torque Rating (Nm)	407	339	339
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	21	18	18
at 1000 rpm of Output Shaft (kW)	43	36	36

<sup>1)</sup> With Pressure Lube <sup>2)</sup> With Standard Lube

## Mechanical 6 & 8 Bolt Power Take-Offs

442



- Engineered to work with virtually all existing transmission applications
- Economical workhorse features a cast iron housing
- Tapered cone bearings for high torque rating and long service life
- Slip fit idler pin for easy interchange from one transmission to another
- Easy to set backlash
- Wide range of shift and output options
- Now available on the Allison 1000, 2000/2400 Transmissions

Series 442	A	C	F	H	L	Q	R	S	U	W	X
Standard Output Shaft Size	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
Intermittent Torque Rating (Nm)	339	339	339	339	339	305	305	271	264	237	190
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	18	18	18	18	18	16	16	14	14	12	10
at 1000 rpm of Output Shaft (kW)	36	36	36	36	36	32	32	28	28	25	20

# Power Take Off

## Mechanical 6 & 8 Bolt Power Take-Offs

**CHELSEA®**

489



- 442 Series family, but with an 8-bolt mounting flange
- No adapter plate needed
- Less installation time, less expense and less chance of leakage
- Wide range of shifters options and pump flanges



zpto 01

Series 489	A	C	F	H	L	Q	R	S	U	W	X
Standard Output Shaft Size	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"
Intermittent Torque Rating (Nm)	339	339	339	339	339	305	305	271	264	237	190
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	18	18	18	18	18	16	16	14	14	12	10
at 1000 rpm of Output Shaft (kW)	36	36	36	36	36	32	32	28	28	25	20

880



- Wide coverage for tough applications
- Speed ratios for high and low speed applications
- Removable shift cover for adjusting backlash
- Dual-pump output for mounting a pump on each end of the PTO

Series 800	B	D	G	J	M	Q	R	T
Standard Output Shaft Size	1½" 10 spline with 1410 flange							
Intermittent Torque Rating (Nm)	678	678	678	678	678	610	542	475
Power Rating for Intermittent Service: at 500 rpm of Output Shaft	36	36	36	36	36	32	28	25
at 1000 rpm of Output Shaft (kW)	71	71	71	71	71	64	57	50

## Split Shaft Power Take-Offs

912



- Three 8-Bolt openings that allow you to operate a variety of auxiliary equipment
- Wide variety of 6-Bolt, 8-Bolt, PowerShift and Reversible PTO's fit the 912 Series
- Air and Lever shift available

Series 912		
Standard Output Shaft Size	2 ¾" 10 spline	
Max Thru Torque Capacity w/Diesel Engine: Automatic Transmission	13 000 lbs ft	17 625 Nm
Manual Transmission	12 000 lbs ft	16 270 Nm
Max Thru Torque Capacity w/Gas Engine: Automatic Transmission	16 000 lbs ft	21 693 Nm
Manual Transmission	15 000 lbs ft	20 337 Nm

941



- Smaller version of the 912 Series with three 6-bolt openings
- Designed for Class 3, 4, 5 and 6 trucks with automatic and manual transmissions with no PTO openings or trucks requiring additional PTO's
- A wide range of 6-bolt and reversible PTO's will fit on the 941

Series 941		
Standard Output Shaft Size	1 ½" 12 spline	
Max Thru Torque Capacity w/Diesel Engine: Automatic Transmission	3100 lbs ft	4203 Nm
Manual Transmission	2900 lbs ft	3932 Nm
Max Thru Torque Capacity w/Gas Engine: Automatic Transmission	4200 lbs ft	5694 Nm
Manual Transmission	3900 lbs ft	5288 Nm

# Power Take Off

## Rear Mount Power Take-Offs

**CHELSEA®**

522



- Designed for ZF, Eaton and Iveco transmissions
- Direct mount pump flanges available
- Installation is quick and easy
- Internal shift mechanism to protect transmission



zpto 01

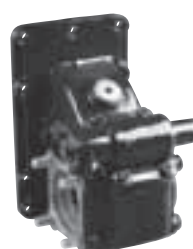
Series 522	T	V
	Rear Mount	Rear Mount
Standard Output Shaft Size	1-1/4" [31.75mm]	Keyed
Intermittent Torque Rating (Nm)	350	350
Power rating for Intermittent Service At 500 rpm of the Output Shaft (kW)	18	18
At 1000 rpm of the Output Shaft (kW)	37	37



VOLVO



ZF



SCANIA



MERCEDES-BENZ



RENAULT



IVECO

### Parker PTO's

Parker's power take-off units are designed to meet the requirement of the majority of today's truck applications. The PTO range covers a great many trucks and is being continually updated to fit new gearboxes. The PTO's are used in a variety of applications such as Tipper, Hook Loaders, Skip Loaders and Cranes, and are specifically designed to close-couple pumps with the current ISO-Standard mounting flange. Alternatively, the units can be fitted with our cardan shaft adaptor to enable them to be used for a wide range of propshaft driven applications.

- Tailor made for the Parker Truck Hydraulics pumps
- Possibility to close-couple any ISO-standard pump
- Shaft-driven adaptor for other applications
- Competitively priced
- Easy to install
- Electrical indicator available on latest PTO's.

Parker can, with its range of PTO units, the F1, F2, T1 and VP1 truck pumps and a great number of accessories, offer the total truck hydraulic package. Parker have become synonymous with extraordinary quality. Many body builders and chassis manufacturers now include our products as a standard part of their programme.



zpto 01



# Directional Control Valves

VO40



Directional control valves known for good manoeuvrability and high performance. Section-built for maximum flexibility and integrated functions to simplify the machine layout. Valves for all types of systems such as open centre, constant pressure and load sensing are available. The valves can be adapted to a wide range of application with different level of demands. This is just a selection of our wide range of valves. Parker valves can be obtained with a large number of optional components and mountings such as:

- Options for variable or fixed pumps displacement
- Pump unloading with blocked pump channel for emergency stop
- For single or multi-pump operation
- For single or multi-valve operation
- Counter pressure valve
- Pressure relief valve
- Port relief valves with or without anti cavitation function
- Anti cavitation valves
- Application adapted spools
- Load check valve
- Port specific force feedback
- Sections with pressure compensators

(Options vary for different valves)

P70CF/P70LS



F130CF



L90LS



zv 01

Valve	Operation					
	Pump Flow l/min	Pressure bar	Manual	Pneumatic	Hydraulic	Electrohydraulic
VO40	40	300	X	X	X	X
P70CF	70	320	X	X	X	X
P70LS	90	320			X	X
F130CF	110	320	X	X	X	X
L90LS	200	320	X	X	X	X

# Remote Control System

## Pneumatic

VP04



The VP04 is a pneumatic pilot valve for the proportional remote control of directional control valves, positioning cylinders, etc. Either linear or joystick lever versions of the VP04 are available.

Principal applications include the proportional remote control of pneumatic spool-actuators and positioning cylinders in mobile or industrial hydraulic systems.

All connections are furnished with couplings of the plug-in type.



zr 21

System Type	Pneumatic Pilot Pressure	
Control pressure range	0–8 bar	
Control flow	max. 7 nl/s	
Control curves with straight characteristics		X
Friction brake for retention in any position		X
Mechanical end-position detent		X

## Hydraulic

PCL4



The PCL4 is a hydraulic pilot valve for the proportional remote control of directional control valves, pumps, motors, etc. It is available with joystick lever-units, as well as linear units for hand or foot control.

The PCL4 is intended primarily for the remote control of hydraulically operated spool actuators and pump regulators in all kinds of mobile and industrial applications.



zr 11

System Type	Hydraulic Pilot Pressure	
Control pressure range	1–75 bar	
Control flow	max. 15 l/min	
Max supply pressure	100 bar	
Individual control characteristics for each direction		X
Selectable start and final pressures		X
Selectable lever force		X
Curves with straight characteristics		X
Curves with two-step characteristics		X
Curves with forced opening (final step)		X
Friction brake for retention in any position		X
Mechanical or solenoid end position detent		X

## Electrohydraulic

PVC6



Series PVC6 is a bankable valve assembly used for remote control of directional control valves. The proportional pressure reducing valve creates a pressure proportional to the inlet current. Solenoid Coil Voltage is available in 12 or 24 Volt. The inlet section can be equipped with a pressure reducing valve to protect the control sections (max inlet pressure to control section is 50 bar).



zr 02

# Remote Control Systems

## Electronic Control Systems

IQAN



IQAN is a state-of-the-art system, developed by Parker, for electronically controlling and monitoring hydraulics in mobile machines. IQAN communicates with the other systems in the machinery, such as diesel engines and transmission systems. IQAN master units display data from these systems and also allows control of them.

IQAN is user-programmable via a high level graphical design tool, which dramatically simplifies development. Simulation of the control system takes place in parallel with the programming of machine functions. The IQAN software tools cover all phases of a machine's life cycle, from development through production to after sales.

**Mobility:**

Hardware designed and tested for mobile hydraulic equipment.

**Simplicity:**

Implement complex machine functionality without specialized programming knowledge.

**Time to Market:**

IQAN's simple programming environment and modular hardware reduces development time.

**Machine Management:**

IQAN has the software tools to benefit the entire life cycle of a machine.

This allows you to reduce cost from design through after sales support.

Components



IQANdesign platform

An advanced expandable modular control system with software tools, IQAN Creative Studios, to add modules and build functionality and simulation tools.



zr 01

System Types	IQANdesign platform
CANbus Master	IQAN-MDL2, IQAN-MD3, IQAN-MC2
CANbus Modules	IQAN-XA2, IQAN-XS2, IQAN-XT2
CANbus Joysticks	IQAN-LL, IQAN-LM
Analog Joysticks	IQAN-LSL, IQAN-LST, IQAN-LF1, ICL4, ICM4
Sensors	IQAN-SP035, IQAN-SP500, IQAN SENSORS

## Stand Alone Concept



IQANdevelop

Task oriented control system with software tools to build functionality together with the Stand-alone Controls IQAN-TOC8 and IQAN-TOC2.

# Auxiliary Valves - Threaded Cartridge Valves



## Directional Control Valves



zv 40  
HY15-3501/USA/EU

Valve Type	Max Working Pressure (bar)	Flow Capacity (l/min)
Manual valves	240	50
Manual three-way valves	240	25
Manual four-way valves	240	8
Pilot operated valves	240	40
Solenoid, poppet-type, two-way valves	345	265
Solenoid, poppet-type, bi-directional valves	345	20
Solenoid, spool-type, two-way valves	345	75
Solenoid, spool-type, three-way valves	345	65
Solenoid, spool-type, four-way valves	345	30
Double solenoid, spool-type, four-way valves	345	25

## Proportional Control Valves



zv 41

Valve Type	Max Working Pressure (bar)	Flow Capacity (l/min)
Solenoid operated, two-way NC or NO proportional flow control valves	207	225
Solenoid operated, two-way NO, proportional pressure control valves	207	150
Solenoid operated, two-way NC throttle valves	207	20
Solenoid operated, proportional pressure reducing valves	207	40
Solenoid operated, three-way, proportional pressure control valves	207	11

# Auxiliary Valves - Threaded Cartridge Valves

## Load Holding Valves



zv 42

Valve Type	Max Working Pressure (bar)	Flow Capacity (l/min)
Counterbalance valves	345	0-750
Check valves	345	0-375
Soft seat check valves	207	0-60
Vent-to-open check valves	240	0-225
Pilot-to-close check valves	240	0-150
Single pilot operated check valves	207	0-190
Double pilot operated check valves	207	0-190
Shuttle valves	240	0-25

## Pressure Control Valves



zv 43

Valve Type	Max Working Pressure (bar)	Max Setting Pressure (bar)	Flow Capacity (l/min)
Direct acting relief valves	345	345	0-150
Cross-over relief valves	240	240	0-75
Dual relief with anti-cavitation checks	345	345	0-60
Pilot operated relief valves	345	345	0-375
Pressure sensing valves	345		0-190
Reducing/relieving valves	345	345	0-150
Direct acting pressure reducing valves	345	345	0-60
Pressure reducing valves	345	345	0-60
Pressure reducing spools	345		0-19
Sequence valves	345	345	0-150
Unloading relief valves	240	207	0-6
Logic elements	250	250	0-19
Thermal relief	250	250	0-30

## Flow Control Valves



zv 44

Valve Type	Max Working Pressure (bar)	Max Flow Setting (l/min)	Flow Capacity (l/min)
Needle valves	240		0-190
Rotary adjust needle valves	240		0-60
Flow divider/combiner valves	207		0-45
Pilot control flow control valves	207		0-60
Flow control valves	240		0-45
Restrictive-type, pressure compensated valves	240		0-150
Priority-type, pressure compensated valves	240	0-40	0-60
Restrictive-type, pressure compensated flow regulator valves	240		0-60
Priority-type, pressure compensated flow regulator valves	240	0-35	0-60
Priority-type, pressure compensated flow regulator with relief	240	0-35	0-60
Velocity fuses	207		0-30



# Auxiliary Valves

## Threaded Cartridge Valves



Directly controlled pressure-relief valves with anti-cavitation function. The valves have good pressure characteristics together with very short reaction times. They are compact, tight, reliable and not sensitive to contamination.



Valve Type	Max Working Pressure bar	Max Setting Pressure bar	Flow Capacity l/min
Pressure relief valves	600	25-550	0-350

## Auxiliary Valves



Parker's stackable selector valve is operated by a wet pin solenoid. The valve is capable of switching from one circuit to another at a variety of flows and pressures. If more than two circuits are to be controlled then additional units can be stacked together. Alternatively, the valve can be connected to a pump and used to direct the flow to either one of two different circuits.

- Stackable
- Reduce pipe work
- Reduce number of fittings
- Reduce number of directional control valves spool sections

The pressure reducing valve is of three-way design.

- Compact
- Easy to adjust
- Factory set and sealed

The sequence valve is designed to open or close a hydraulic pilot signal when it reaches a predetermined pressure level.

- Compact
- Several pressure ranges available
- Can be factory set and sealed

The shuttle valve enables two signal flows in a hydraulic system to be directed alternately into a common service line. The flow with the highest pressure takes priority.

- Small dimensions
- Rapid switching
- Negative overlapping
- Reacts on very small flows
- Minimal leakage



Valve Type	Max Working Pressure bar	Flow Capacity l/min
Stackable, 2-position, 4-way, solenoid operated, circuit selector control valves	210	40
Pressure reducer valve	250	25
Sequence valve	250	25
Shuttle valve	250	20

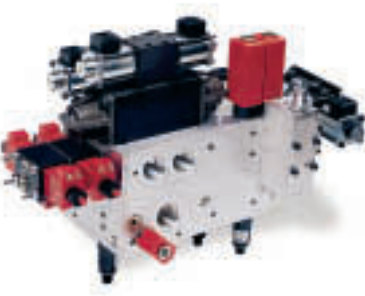
# Hydraulic Manifold Blocks

## Hydraulic Cartridge Systems



Hydraulic Manifold Blocks are designed to meet the many demands on mobile hydraulic equipment. Manifold blocks offer you the following benefits:

- Minimum number of tubing, hoses and couplings
- Fewer components
- Fewer leakage points
- Less space required
- Simplified assembly and service instructions
- Complete system solution with optimized functions



Manifold blocks can be flanged to one or more directional valves as well as to pumps, cylinders, motors and filters.

Some cartridge valve products offered by Parker include:

- Directional Control Valves
- Logic Elements and Flow Controls
- Pressure Controls
- Proportional Valves
- Powershift Transmission Controls
- Load Holding Valves



Parker offers value-added services such as manifold design using 3D CAD and CAM software, application engineering assistance and assembly and testing capabilities.

When you need finished integrated hydraulic circuits with extremely short lead times, the Parker 'Speed Shop' is the place to go. Parker's expert application engineers along with the latest computer-aided design technology can bring advanced new custom products to market faster.

The solution to your problem is only minutes away when Parker's Quick Design proposals and quotes that are created using 3D CAD. Once the design is finalized, the 'Speed Shop' process is further streamlined by utilizing electronic communications and approvals. When design specifications meet customer requirements, Parker's CAD linked prototype machining produces fully functional hydraulic integrated circuits. All prototypes are fully tested and documented before being released to production. In today's highly competitive market, speed and quality are critical for success.



# Actuators / Cylinders

Multi-stage, Double-acting Telescopic with Mechanical Plunger and Load Holding Valve



Parker offers single- or double-acting single stage and telescopic mobile cylinders. Custom cylinders can be built in batch sizes from one piece to hundreds. We work with our customers to develop specifications in a wide range of sizes, pressures and mounting styles.

Multi-stage, Single-acting Telescopic



- Bore sizes up to 500 mm diameter
- Any practicable stroke length
- Operating pressures up to 500 bar
- Seal compounds to suit all standard fluids
- A wide range of materials and coatings
  - stainless steel
  - electroless nickel
  - nitriding
  - chrome and double-chrome plating
- Options include
  - loadholding valves
  - electro-hydraulic transducers
  - position switches
  - end of stroke hydraulic damping
  - protective rod boots
  - flow controls
  - flow fuses

MWA/MWB & HC20 Single Stage Cylinder



Double-sided Steering Cylinder



zc 01, zc 03

Cylinder	Cyl. Bore Ø mm	Pressure bar	Max Stroke mm	Load Holding Valves	Optional Seal Types	Position Switches	Customized Variants
MWA	50-200	250	4000	X	V	X	X
MWB	32-200	160	4000	X	X	X	X
HC20	25-200	160	2800	X	X	X	X

## HTR Rotary Actuators



Rack and pinion rotary actuators deliver constant torque, in both directions. Parker offers single rack and double rack versions, with 'specials' to customer order.

- Output torques up to 68,000 Nm
- Standard rotations – 90°, 180°, 360°
- Specials up to five revolutions or more
- Up to 210 bar operating pressure



zc 02



# Accumulators - Piston, Bladder and Diaphragm

A Series



Parker's comprehensive range of CE approved piston accumulators maintains high pressure for safe braking and manoeuvring. Ride control and load/boom damping systems enhance productivity and improve the operator's environment, while greater system efficiency and reduced pump sizes give longer life with lower whole-life costs.

- Standard capacities from 0.1 to 76 litres
- 250 bar and 350 bar maximum operating pressures
- Bore diameters from 50 mm to 200 mm
- Seal compounds to suit all standard fluids and operating temperatures



za 01

ACP Series



- Standard capacities from 0.08 to 0.95 litres
- Up to 275 bar operating pressures
- 40 mm and 50 mm bore diameters
- Rechargeable or sealed-for-life designs
- High strength crimped construction



za 03

ADE Series Diaphragm Accumulators



- 11 standard capacities from 0.075 litres to 3.5 litres
- Up to 250 bar maximum working pressure depending on model
- Nitrile and epichlorohydrine bladder compounds for operating temperatures from -30°C to +80°C
- Flow rates up to 60 l/min
- BSPP threaded ports as standard; other thread forms available to order
- Meet conformity assessment procedures of PED 97/23/EC



za 07

## Accumulator Charging Kits and Mounting Accessories



- Charging and gauging equipment
- Gauge adapters and assemblies
- Mounting clamps and base brackets
- U-bolt mounting assemblies
- Accumulator repair tools



za 01

# Filtration and Fluid Analysis

## Total Product Offering



For Parker Filtration, our commitment to re-think, re-engineer and realign ourselves to fulfil the needs of our customers and their customers, is best demonstrated by our Total 'Global' Product Offering. In addition to the products highlighted here, a comprehensive catalogue is available.

- Various mounting configurations
- High capacity/high efficiency Microglass III media and 'e' series environmentally friendly media options
- Visual and electrical indicators with several connector styles
- Tank mounted and in-tank models
- Integral indicator options

### Low Pressure



Model	Max Flow Rate (l/min)	Max Pressure (bar)	Mounting Style
Suction Return	250	10	Tank Top
TTF Series	500	10	Tank Top
ETF series	140	6	Tank Top
Tank Topper	650	10	Tank Top + Integrated Breather
IN-AGB	2400	10	inside Tank



zf 01

### Medium Pressure



- Various port options
- High capacity/high efficiency Microglass III and 'e' series, environmentally friendly media options
- Cartridge style by-pass valve
- Visual and electrical indicators with several connector styles

Model	Max. Flow Rate (l/min)	Max Pressure (bar)	Mounting Style
CN Series	600	70	Inline
45 Series	260	40	Inline



zf 02

### High Pressure



- Various mounting configurations
- High capacity/high efficiency Microglass III and 'e' Series, environmentally friendly media options
- Visual and electrical indicators with several connector styles
- Flows up to 520 l/min at 414 bar

Model	Max Flow Rate (l/min)	Max Pressure (bar)	Mounting Style
8 Series	700	414	Inline
70 Series	450	420	Inline



zf 03



## LaserCM – Portable Particle Counter

There are many reasons why the LaserCM, the latest in an impressive line-up of portable particle counters, is destined to become a world-leader. Some users will be attracted to its proven performance in the field, on the production line or in the laboratory. Others will recognize the manufacturing quality, its reliability, its potential for reducing machine downtime, and its effective predictive maintenance programmes.



zfa 03



# Fuel Filtration and Separation

## Racor Spin On Series



- SAE J1488/J1839 and ISO 4020 water separation and ISO TR13353 particle efficiency
- Install a compact Spin On filter/separator with an integral heater and see-through bowl
- Replaceable Aquabloc elements and multiple ports
- 400 Series primer pump option allows bus and truck fleet operators to tailor a filter/separator system specifically to their operating needs



zf 10

## Racor Turbine Series



- The heavy duty, high capacity water separation and fuel filtration solution
- Genuine Aquabloc elements
- New design, clear-view bowls, die cast aluminium construction
- Heater and metal bowl options
- Drain valve + water sensor options



zf 10

## Crankcase Ventilation System (CCV)



- A compact, patented package that provides superior oil coalescence and crankcase pressure control under the severest conditions
- Enabling engines to meet Euro Tier 4 and 5 requirements while protecting turbo and intercooler systems



zf 10

## Engine Air Filtration Systems



- Pamac Range – 2 and 3 stage air cleaners designed to ensure low maintenance costs operating efficiency
- Eco Range – lightweight easy-fit air cleaners
- Dynacell range – low profile, multi-stage air cleaners for light through to extra heavy service



zf 10

## Transmission + Back Axle Filters and Cabin Air



- A good filtration ratio with a specially designed 'clogging layer'. High burst pressure demand.
- Air intake filters designed to protect motors and extend their life
- Fresh air filters for truck cabin filtration to remove impurities from air, sand, pollen, asphalt etc



zf 10

## Truck Tyre Saver 1 – Tyre Filling with Nitrogen



- Specially designed for filling truck tyres delivering 10, 20, 30 and 40 nm<sup>3</sup>/h at 95 % purity and 10 bar (g)
- Automatic pneumatic switch-off when there is no nitrogen demand
- Compact design using a high-performance membrane
- Lower fuel consumption and longer tyre life



zf 10

# Pneumatic

## Truck Valves

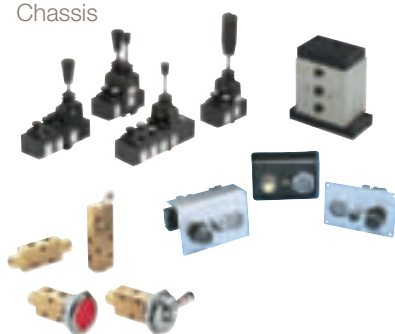
Cab



Highly versatile range of poppet to inline air-control panels for on and/or off-road vehicles assisting air suspension stability.

- Reduced frictionless seal technology
- Low pressure drop loss in actuation
- Robust die cast, plastic and anodized material
- Push button or toggle technology
- Normally open/normally closed operation
- Mono or bi-stable position operation

Chassis



Load distribution legislations in various countries utilize solenoid or vacuum, including hand-lever valves, to manually or automatically operate rugged, light and heavy freight operation.

- Wide operating temperature -40 °C to +70 °C
- Environmental conditions IP67
- Electric conditions between 12-24 VDC
- Stable seal performance technology
- Wide range of body sizes 1/8-3/4 (3 mm-19 mm)
- Easily accessible adjustments

## Truck Air Prep

Cab



Provides moisture-free and dry compressed air to the equipment and applications which require continuous and uninterrupted regulated operation.

- One-piece filter cartridge for fast maintenance
- Robust metal shell for extra safety
- Key lock metal bonnet
- Ideal for low and high flow applications
- Space saving package for optimal performance
- Precise regulation with balanced poppet
- Multi-porting options

Chassis



Low operating noise, with the ability to withstand vibration while operating in extreme conditions.

- Flexible design suitable for retrofitting systems
- Compact and light weight housing material
- Electric or pneumatic drains
- Solid control piston for extended life
- Removable, non-rising knob for panel mounting
- Dual or three-unit combinations



zpn 01

# Thermoplastic Hoses

## Polyflex/Parflex

Thermoplastic Hoses for Hydraulic Applications



For pressures up to 700 bar. Single and multiple lines with permanently attached end fittings for self assembly with Polykrimp/Parkrimp systems.

Applications: low pressure to high pressure hydraulic, pneumatic and surface finishing, PTFE hoses.

Construction: thermoplastic hoses with synthetic fibre/steel wire reinforcement.

Size range: from 1/4" to 1.1/4".

Working pressure: 700 bar on 1/4" and 275 bar on 1.1/4".

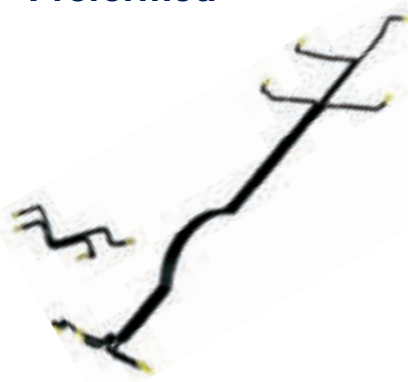
Temperature range: -57 °C to +150 °C.



zfc 03

Catalogue 4460 and 4467 (PTA/PTB)

## Preformed



The preform technology enables Parker to supply tailor-made hose and thermoplastic tubing solutions for a variety of applications such as airbrake, fuel lines, low and also high pressure hydraulic lines.

Benefits:

- It is common for Preformed Thermoplastic products to cost less than the tube or hose/tube combination it will replace. The difference is mainly achieved by reducing the number of fittings on a given routing
- In cases where Parker preformed products have more expensive parts than the comparable product, the time saved during the handling and installation has made up more than the original costs
- Avoid leakage points by reducing the number of fittings
- Optimum usage of confined spaces
- Easy assembly in hard-to-reach areas
- Weight reduction



zfc 01

Catalogue 4460

## Polyflex Presto

Tubing for Pneumatics



Thermoplastic single and multicore tubing bundles for most pneumatic applications. Tubing bundles for instrumentation, controls and systems monitoring.

Materials: Polyethylene (PE), Polyurethane (TPU), Polyamide (PA).

Size range: 2 to 16 mm (1/8" to 1").

Temperature range: -40 °C to +80 °C



zfc 02

Catalogue 5210



# Hydraulic Fittings

## EO-Plus, EO2-Plus, EO2 Form

EO-PLUS



New, chromium(VI)-free fitting generation, consisting of: EO-Plus for metallic sealed connections, EO2-Plus for soft sealed connections and EO2-Form for soft sealed cold-formed tube connections. Gives maximum safety even at extreme pressures, 500 hours corrosion resistance against white rust.

EO2-PLUS



Product range:  
Series L from 6 to 42 mm tube o.d.  
Series S from 6 to 38 mm tube o.d.

EO2-FORM



Material: steel.  
Sealing material (EO2-Plus/EO2-Form): NBR/FPM.  
Nominal pressure Pn: Series L up to 500 bar  
Series S up to 800 bar.  
Sizes 20S 38S: 420 bar.



Catalogue 4100-8

## Parker Universal Push-to-Connect



The Parker Universal Push-to-Connect is the standardised push-in system for Parker 24° DIN fitting bodies with tube and hose terminations. Saves time and costs through simple, rapid assembly. Repair-friendly even with very dirt connectors. Disassembly with ordinary standard tools. Maximum assembly safety through visual assembly inspection. 100% leak-free. High corrosion resistance thanks to environment-friendly Cr(VI)-free surfaces. Available worldwide.

## SensoControl

Test Points and Adaptors



Broad range of EMA-measuring points and adaptors in Cr(VI)-free finish for rapid, clean and simple adaption of sensors and measuring equipment to hydraulic systems.



Catalogue 4100

# SensoControl

## SensoControl

Hand-held Measuring Devices

ServiceJunior



Measuring and displaying pressures with high precision on a 4-digit display. Pressure peaks are securely captured at a scanning rate of 10 ms by displaying MAX reading.

- Digital pressure gauge with illuminated display
- Bar graph display with Peak & Hold function
- Pressure peaks in ms
- 4-key menu
- Robust metal housing



zsc 01  
Catalogue 4054

ServiceJunior Wireless



- Wireless transmissions up to 50 metres
- Read-out data from measured data memory to the PC via radio interface
- Monitor several measurement points (network operations)
- Long-term monitoring



zsc 01  
Bulletin 4056

ServiceJunior Kit /  
ServiceJunior Wireless Kit



- Complete kit including Test Point Adaptors and Test Hoses
- Ready to start



zsc 01  
Catalogue 4054  
Bulletin 4056

## The Parker ServiceMaster EASY



- Rapid fault diagnosis = high quality maintenance
- Pressure spike measurement 1 msec
- Measured value storage to record pressure sequences with various storage functions (auto trigger, start-stop, etc)
- USB PC interface
- Setting and evaluation of measurement data with SensoWIN software

## SensoControl – Sensors

Pressure Sensor SCP  
Pressure and Temperature  
Sensor SCPT



Pressure sensors in robust stainless steel housings for mobile use.



zsc 01  
Bulletin 4050-3

# Pneumatic Fittings

## Prestolok 2

Push-in Fittings – Thermoplastic Body



Prestolok 2 is an instant fitting for plastic tubing, may be used with a protective cap.

Material: polyamide, threaded parts in nickel plated brass.

Sizes: tube o.d. 4 to 14 mm.

Threads: BSPT, BSPP 1/8" to 1/2", metric M3 to M22.

Working pressure: up to 18 bar.

Working temperature: -25 °C to +80 °C  
(depending on tube specification)



zfc 09  
Catalogue 0093

## Prestomatic 2

Airbrake Fittings



Re-usable push-in brass fitting for use with polyamide airbrake tubing.

Material: brass.

Sizes: tube o.d. from 6 to 16 mm.

Threads: from M10x1.0 to M22x1.5, NPT, BSPT.

Working pressure: up to 17 bar.

Working temperature: -40 °C to +100 °C.



zfc 10  
CD3530-2/UK

## Metrulok

Medium Pressure Brass Tube Fittings



Metrulok is a one-piece ready to use bite type fitting for use with either copper or plastic tubing. The cutting ring is retained within the nut. Metrulok fittings are reusable.

Material: brass.

Sizes: tube o.d. 4 to 22 mm.

Threads: NPT, BSPT, BSPP 1/16" to 3/4", metric M5 to M22.

Working pressure: copper tubing up to 180 bar, plastic tubing up to 39 bar.  
(depending on tube size)

Working temperature: -60 °C to +190 °C.



zfc 11  
Catalogue 0093

# Rubber Hoses

## SAE 100R5 Air Brake/Refrigerant and 2TE Hydraulic Hoses



Parker's airbrake and refrigerant hoses are the optimum solution for air brake systems, diesel engine cooling systems as well as air conditioning applications. Parker is offering for this hose types a special range of fittings (Series 26) as a No-Skive system. Some of the available hose types include high performance of fire resistance construction.

The hose constructions are dependent on working pressure and contain different layers of textile or steel wires and synthetic rubber material for tube and cover.

Working pressure: up to 207 bar.

Temperature range: -50 °C to +150 °C.

Dimensions: size -4 to -32.



zfc 17  
Catalogue 4400-UK

## 441 Compact *No-Skive* High Pressure SAE 100 R16 Hose – ideal for Power Steering



Parker's upgraded 441 hose provides 2-wire braided performance with only 1 high quality wire braid and is now approved for a working temperature of up to +125 °C.

The Hi-Pac construction of the hose braid allows the technical characteristics of an SAE 100 R16 hose to be met, but offers higher flexibility and therefore improved ease of installation in machines or equipment.

The 441 hose is ideal for many industrial and mobile applications, with typical usage seen on agricultural machines or in power steering circuits.

Synthetic rubber tube; one braid of high tensile steel wire reinforcement; oil, weather and abrasion resistant black synthetic rubber cover.

Temperature range: -40 to +125 °C

Exceptions: air max. +70 °C, water max. +85 °C

## CARBONBLUE N/L 10 – 20 / CARBONBLUE HEATED



CARBOBLUE N/L 10 - 20 is an automotive hose for trucks, specially designed for additive that reduces the amount of polluted substances released into the environment. These objectives are included in the European parameters EURO IV and EURO V.

CARBOBLUE HEATED underlines our engagement towards an environment friendly attitude. This hose is equipped with electric resistances and is capable to stand also extremely cold temperatures, while keeping its main features in terms of performances, flexibility and resistance to stress and cracking.

Tube: Black, smooth, antistatic  $R < 1M \Omega/m$  and sulphur free EPDM rubber compound nitrosamine-free with peroxide curing. Composed of 32 % urea aqueous (AUS 32/AIR1-AdBlue).

Reinforcement: Synthetic textile fabrics.

Cover: Black, smooth, antistatic  $R < 1M \Omega/m$ , EPDM rubber compound nitrosamine free, ageing, heat and weather resistant.

# Rubber Hoses

## CARBURITE 10

Suction and Delivery Hose



CARBURITE 10 is a light weight and very flexible hose, manufactured with a premium NBR rubber compound and applicable for a wide range of hydraulic fluids. Based on its product features, CARBURITE 10 is the ideal hose for suction and return lines in hydraulic systems.

Reinforcement: Synthetic textile fabrics and embedded steel wire helix.  
Cover: Black, smooth, antistatic ( $R < 1M\Omega/m$ ).

NBR/SBR rubber compound, oil, fuel, abrasion, ageing and weather resistant.

Suction: Max. 0,8 bar (600 mm Hg).

## OILPRESS N/L 20 – 30

Fuel Hose



OILPRESS is the ideal fuel line hose and applicable for all types of fuels (including alternative fluids) and for petroleum products with an aromatic content not exceeding 50 %. Based on its temperature range from  $-30\text{ }^{\circ}\text{C}$  to  $+100\text{ }^{\circ}\text{C}$  combined with the high resistance to a wide range of fluids, this hose type is ideal for power steering applications in trucks.

Tube: Smooth, black, oil and fuel resistant NBR rubber compound, suitable for petroleum products.

Reinforcement: Synthetic textile yarns.

Cover: Smooth, black, self-extinguishing, antistatic ( $R > 1M\Omega/m$ ).

Heat, oil, abrasion and weather resistant CR rubber compound.

## AIRBRAKE DIN 74310

Air Brake System Hose



Based on the special EPDM rubber compound, used for both tube and cover, the product features are low permeability to air and an excellent flexibility even in case of low temperatures. The premium rubber compounds gives resistance to high temperatures, weathering, abrasion and oil traces. Based on this product features, AIRBRAKE DIN 74310 is widely used in automotive and air brake systems.

Tube: Black, smooth EPDM nitrosamine-free rubber compound.

Reinforcement: Stress-resistant, synthetic textile yarns.

Cover: Black, abrasion, ageing and weather-resistant, smooth EPDM nitrosamine free rubber compound.

## RADIOR DIN 6

Cooling System Hose



RADIOR DIN 6 is designed for a constant working pressure of 6 bar. Also the increased temperature range from  $-40\text{ }^{\circ}\text{C}$  up to  $+125\text{ }^{\circ}\text{C}$  makes this hose to the preferred product for cooling systems of automotive engines, stationary engines and for refrigerant systems.

Tube: Black, smooth, heat resistant EPDM rubber compound.

Reinforcement: Synthetic textile fabrics yarns.

Cover: Black, smooth, wrapped finish, heat, ageing and weather-resistant EPDM rubber compound.

# 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 and 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. For further info call 00800 27 27 5374.



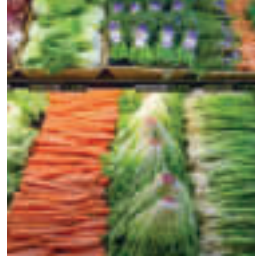
## AEROSPACE

### 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<sup>2</sup> 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
- Food & beverage
- 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
- Controllers
- Gantry robots
- Gearheads
- Human machine interfaces
- Industrial PCs
- Inverters
- Linear motors, slides and stages
- Precision stages
- 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
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

### Key Products

- Air preparation
- Compact cylinders
- Field bus valve systems
- Grippers
- Guided cylinders
- Manifolds
- Miniature fluidics
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves and controls
- Rodless cylinders
- Rotary actuators
- Tie rod cylinders
- 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











# DVD Information

## System Requirements

To view the DVD, the following are required:

- Pentium®-class processor
- Win® XP
- 128 MB of RAM (512 MB recommended)
- 335 MB of available hard-disk space if Acrobat Reader need to be installed.

## Acrobat Reader

Catalogue files are viewed using a customized document viewer based on Adobe Acrobat Reader. If you do not have Acrobat Reader 8.0 installed on your PC, you will be given the option to install Acrobat Reader 8.0 from the DVD.

## To View the DVD

The document viewer application will launch, and the opening page will appear on your monitor. If the application don't start when you have inserted the disc, right-click on the DVD icon in the Explorer view and select Explore. Double click on start.bat. From this page you can navigate in to the different sections of the DVD.

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# DVD Catalogue



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- 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.
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