









Training Courses - 2019

Motion and Drives / Global Products





TRAINING COURSE 2019

Table of Contents

Parker Training Courses	5
Our Technology Trainers	5
Training Schedule 2019 - Offenburg	6
SK-PSD	7
SK-PAC	8
SK-Safe PLC	9
SK-C3	10
SK-ETH	
SK-AC10	12
SK-AC30V/P/D/A	13
SK-AC30 PDQ	14
SK-AC30 PDD	
SK - CMS / Servomotor Training	16
Terms of Registration and Entry	17

Parker Hannifin

The global leader in motion and control technologies

A world class player on a local stage

Global Product Design

Parker Hannifin has more than 40 years experience in the design and manufacturing of drives, controls, motors and mechanical products. With dedicated global product development teams, Parker draws on industry-leading technological leadership and experience from engineering teams in Europe, North America and Asia.

Local Application Expertise

Parker has local engineering resources committed to adapting and applying our current products and technologies to best fit our customers' needs.

Manufacturing to Meet Our Customers' Needs

Parker is committed to meeting the increasing service demands that our customers require to succeed in the global industrial market. Parker's manufacturing teams seek continuous improvement through the implementation of lean manufacturing methods throughout the process. We measure ourselves on meeting our customers' expectations of quality and delivery, not just our own. In order to meet these expectations, Parker operates and continues to invest in our manufacturing facilities in Europe, North America and Asia.

Electromechanical Worldwide Manufacturing Locations

Europe

Littlehampton, United Kingdom Dijon, France Offenburg, Germany Filderstadt, Germany Milan, Italy

Asia

Wuxi, China Jangan, Korea Chennai, India

North America

Rohnert Park, California Irwin, Pennsylvania Charlotte, North Carolina New Ulm, Minnesota



Offenburg, Germany

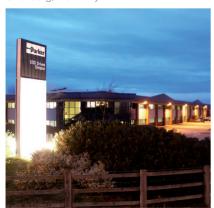
Local Manufacturing and Support in Europe

Parker provides sales assistance and local technical support through a network of dedicated sales teams and authorized technical distributors throughout Europe.

For contact information, please refer to the Sales Offices on the back cover of this document or visit www.parker.com



Milan, Italy



Littlehampton, UK



Filderstadt, Germany



Dijon, France

Parker Training Courses

Helping our customers become self-sufficient

With a number of different courses running throughout the year covering all aspects of our drives range and meeting the specific needs of designers, programmers and maintenance staff, Parker Electromechanical and Parker SSD Drives provide their customers with the necessary skills to enable them to support their own equipment without the need of external assistance. In this brochure you will find a full list

of currently available courses in our factories of Offenburg, Milan and Diion.

Who are the courses for?

Electrical and Maintenance Engineers, OEM and System Integration Engineers, Plant and Maintenance Managers. The qualifications for participation in this training seminars are basic as well as special knowledge in the respective area of usage of the product.

In order to impart a profound knowledge, the maximum number of participants per training is limited to 8 persons.

Seminar According to Customer Specifications

All training seminars can also be held at your premises and according to your special requirements, if desired. Please do not hesitate to contact us!

Our Technology Trainers



Joachim Tschopp call: +49 (0)781 509-4442 jtschopp@parker.com

Joachim Tschopp joined Parker in 1985 as Development Engineer. Since 2002 he is the Training Manager at the Offenburg Location, applying his comprehensive product experience to the training of technical product seminars.



Marco Bruneri call: +39 (0)2 361081 MBruneri@parker.com

Marco joined Parker in 1996 as Service Engineer for Italy, Marco as a long and significant experience in motion controls applications.



Jean-François Tofilski call: +33 (0)329 351 660 jtofilski@parker.com

Jean-François joined SSD in 2000 as application engineer in France and has extensive experience of AC and DC drives gained through commissioning and technical support. He is now an application engineer for Europe and supports drive training since 2010.



Hubert Fourny call: +33 (0)3 80 42 41 13 hfourny@parker.com

Hubert joined the company in 1985 as Sales Engineer and then had several positions in the Sales department and Customer Service. During these years, Hubert has gained a consistent experience in servomotors and special applications.

Training Schedule 2019 - Offenburg

	January February		March		April			May			June			
1	New year	1		1		1		14.	1	Labor Day		1		
2	1.	2		2		2	SK-AC10	Е	2			2		
3		3		3		3	SK-AC30V/P/D/A	Е	3			3		23.
4		4	6.	4	10.	4	SK-AC30PDQ	E	4			4		
5		5		5		5			5		_	5		
6	Twelfth Day	6		6		6			6	SK-PSD	Е	6		
7	2.	7		7		7			7	SK-PSD / -PAC	Е	7		
8		8		8		8	SK-PSD	D	8	SK-PAC	Е	8		
9		9		9		9	SK-PSD / -PAC	D	9	SK-PAC/-Safe PLC	Е	9	Whit Sunday	
10		10		10		10	SK-PAC	D	10	SK-Safe PLC	E	10	Whit Monday	24.
11		11	7.	11	11.	11	SK-PAC/-Safe PLC	D	11			11		
12		12		12		12	SK-Safe PLC	D	12			12		
13		13		13		13			13		20.	13		
14	3.	14		14		14			14			14		
15		15		15		15		16.	15			15		
16		16		16		16			16			16		
17		17		17		17			17			17		25.
18		18	8.	18	12.	18			18			18		
19		19		19	SK-C3 D	19	Good Friday		19			19		
20		20		20	SK-C3 D	20			20		22.	20		
21	4.	21		21		21	Easter Sunday		21			21		
22		22		22		22	Easter Monday	17.	22			22		
23		23		23		23			23			23		
24		24		24		24			24			24		26.
25		25	9.	25	13.	25			25			25		
26		26		26		26			26			26		
27		27		27		27			27		22.	27		
28	5.	28		28		28			28			28		
29				29		29		18.	29			29		
30				30		30			30			30		
31				31					31					

July August		September			October			November		December		
1	27.	1	1			1			1 All Hallows	1		
2		2	2		36.	2			2	2		49.
3		3	3			3			3	3		\neg
4		4	4			4			4 45.	4		
5		5 32	5			5			5	5		
6		6	6			6			6	6		
7		7	7			7	SK-PSD	Е	7	7		
8	28.	8	8			8	SK-PSD / -PAC	Е	8	8		
9		9	9		37.	9	SK-PAC	Е	9	9		50.
10		10	10			10	SK-PAC/ -Safe PLC	Е	10	10		
11		11	11			11	SK-Safe PLC	Е	11 46.	11		
12		12 33	12			12			12	12		
13		13	13			13			13	13		
14		14	14			14		42.	14	14		
15	29.	15	15			15			15	15		
16		16	16		38.	16	SK-C3	Е	16	16		51.
17		17	17			17	SK-C3	Е	17	17		
18		18	18			18			18 47.	18		
19		19 34	19			19			19	19		
20		20	20			20			20	20		
21		21	21			21			21	21		
22	30.	22	22			22		43.	22	22		
23		23	23	SK-PSD	D	23	SK-AC10	Е	23	23		52.
24		24	24	SK-PSD / -PAC	D	24	SK-AC30V/P/D/A	Е	24	24		
25		25	25	SK-PAC	D	25	SK-AC30PDQ	E	25 48.	25	1. Christmas Day	
26		-	26	SK-PAC/ -Safe PLC	D	26			26	26	2. Christmas Day	
27		27	27	SK-Safe PLC	D	27			27	27		
28		28	28			28			28	28		
29		29	29			29		44.	29	29		
30		30	30		40.	30			30	30		
31		31				31				31	New Year's Eve	

SK-Safe PLC	Introduction to the Safety control	SK-AC10	AC Drives
SK-C3	Introduction to the Compax3 Drive Controller Technology	SK-AC30V/P/D/A	For the Control of Pump, Fan and General Purpose Applications
SK-PAC / -Safe PLC	PAC Controller - Safe PLC	SK-AC30PDQ	Parker Drive Quicktool (PDQ) Software
SK-PSD / -PAC	PSD Servo Drive - PAC Automation Controller		

SK-PSD









Parker Servo Drive - PSD

Who is it for?

- ☑ Project managers
- ☑ Service, technicians

Prerequisite

☑ Basic technical training

Contents

- ☑ Presentation of the PSD device technology, multi-axes technology / single axis technology
- ☑ Safety technology according to EN ISO 13849-1
- ☑ Introduction to the Parker Automation Manager PAM with focus to drive configuration
- ☑ Setting up EtherCAT, PROFINET, Ethernet/IP communication
- ☑ Commissioning of axes with practical examples
- ☑ Controller optimization and error diagnostics with practical examples

Objective

- ☑ Familiarization with the Parker Servo Drive Family PSD
- ☑ Successful setup of the PSD
- ☑ Communication with the control

Price

300.00€

Duration

2 x 1/2 day

Dates/Language

Training in Offenburg

SK-PSD: April 8th to 9th 2019 German SK-PSD: May 6th to 7th 2019 English SK-PSD: September 23th to 24th 2019 German SK-PSD: October 7th to 8th 2019 English

Training in Milan (on request)

SK-PAC



PAC Controller



Who is it for?

☑ Project managers and programmers of electric machines and plants

Prerequisite

- ☑ Knowledge in PLC, IEC 61131-3, PC or Embedded Systems programming
- ☑ Participation in the SK-C3 or SK-PSD seminar

Contents

- $\ oxdot$ Presentation of the PAC Controller System
- ☑ EtherCAT Bus System Basics and Settings
- ☑ Presentation of the CODESYS Programming Software V3 and PSD plugin software
- ☑ SoftMotion (Point to point movements, axis synchronization)
- ☑ Integration of external components (servo drives, I/O components)
- ☑ Practical programming exercises in accordance with IEC 61131-3

Objective

☑ This training will enable you to specify and create projects with the PAC Controller

Price

995.00 €

Duration

2 spread over 3 days

Dates/Language

Training in Offenburg



Training in Milan (on request)





SK-Safe PLC



Safety Control - Safe PLC

Who is it for?

☑ Project managers and programmers of electric machines and plants

Prerequisite

- ☑ Knowledge in PLC, IEC 61131-3, PC or Embedded Systems programming
- ☑ Participation in the SK-PAC and SK-PSD seminar

Contents

- ☑ Application of safety standard EN ISO 13849-1
- ☑ Evaluation of protective measures
- ☑ Presentation of the safety functions according to DIN EN (IEC) 61800-5-2
- ☑ Presentation of the safety controller Safe PLC
- ☑ Integration of the Safe PLC into a PAC control system as well as its safetyrelated components and their validation
- ☑ Practical programming examples

Objective

☐ This training will enable you to specify and create projects according to safety standard

Price

300.00 €

Duration

2 x 1/2 day

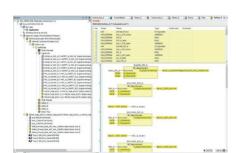
Dates/Language

Training in Offenburg

SK-Safe PLC: April 11th to 12th 2019 German May 9th to 10th 2019 SK-Safe PLC: English SK-Safe PLC: September 26th to 27th 2019 German October 10th to 11th 2019 English

Training in Milan (on request)





SK-C3



Compax3 Device Technology T11/T30

Who is it for?

☑ Programmers, project managers and users of electric machines and systems

Prerequisite

- ☑ Knowledge in PLC, IEC 61131-3, PC or Embedded Systems programming
- ☑ Basic knowledge in higher programming languages

Contents

- ☑ Presentation of Compax3 S/H/M device technology
- ☑ Presentation of the Compax3 T11/T30 technology
- ☑ Presentation of the user software
- ☑ Setup / diagnosis of an axis
- ☑ PLCopen- / IEC- /C3 function modules
- ☑ Presentation of the CoDeSys Software
- ✓ Program debugging
- ☑ Practical programming exercise

Objective

- ☑ Teaching knowledge to develop programs with the CoDeSys programming system
- ☑ Familiarization with the Compax3 device technology
- ☑ Successful setup of the Compax3
- ☑ Familiarization with the individual function modules
- ☑ Creation and integration of a CoDeSys project

Price

450.00 €

Duration

1 + 1/2 days

Dates/Language

Training in Offenburg

 SK-C3:
 March 19th to 20th 2019
 German

 SK-C3:
 October 16th to 17th 2019
 English





SK-ETH

High Force Electro Thrust Cylinder - ETH and High Load Rodless Actuator HLR



Who is it for?

- ☑ Project managers, design engineers.
- ☑ Technicians
- ☑ Sales (technical indoor service and technical field service)

Prerequisite

Basic technical training.

Contents

- ☑ Product Presentation of Electro Thurst Cylinder ETH
- ☑ Product Presentation High Load Rodless Actuator (starting from june 2019)
- ☑ Working with the product catalogue
- ☑ Sizing incl. lifetime calculation, EL-Sizing-Tool
- ☑ ATEX Basics
- ☑ Presentation of the application.



Objective

- ☑ Familiarization with the Electro Thrust Cylinder ETH
- ☑ Familiarization with the possibilities of usage
- ☑ ETH in ATEX design with EX/EY motor ranges
- ☑ Configure ETH Cylinders according to the application

Price

300.00€

Duration

1 day

Dates/Language

Training in Offenburg - English/German (on request)



SK-AC10



AC Drives

Who is it for?

Distributors, Electrical and Maintenance Engineers, OEM and System Integration Engineers, Plant and Maintenance Managers.

Product description

Parker SSD Drives range of inverter products are designed to provide users with exceptional levels of speed and torque control for a wide range of industries, from simple fan and pump control through to the most demanding of high-performance applications.

These drives are supported by an extensive range of hardware options and software tools to help end-users, OEMs and system integrators achieve the best possible results from their investment.

Prerequisite

There are no formal entry requirements for this course but it is assumed that all delegates are technically competent and are suitably qualified to install, operate, commission and maintain Parker SSD Drives' inverters and related products.

Contents

Over the duration of the course, delegates will develop their knowledge of Parker SSD Drives' inverter products through formal instruction, group discussion and practical exercises.

Topics include:

- Introduction to AC motors and drives
- Theory of operation
- Options and product codes
- Practical commissioning
- Software tools
- Key industry segments and example system applications

Objective

The purpose of this course is to provide a technical introduction to Parker SSD Drives' inverter products and to develop a good understanding of their use and capabilities.

Price

300.00€

Duration

1 day

Dates/Language

Training in Offenburg

SK-AC10: April 2nd 2019 English SK-AC10: October 23rd 2019 English

SK-AC30V/P/D/A



For the Control of Pump, Fan and General Purpose Applications

Who is it for?

Distributors, Electrical and Maintenance Engineers, OEM and System Integration Engineers, Plant and Maintenance Managers.

Product description

The AC30V industrial drive has been specifically designed to provide users with exceptional levels of control for pumps, fans and general purpose applications. Its flexible and highly modular construction enables a wide range of communications and I/O modules to be easily added as required. The range is supported by the Parker Drive Quick Tool which is designed to guide users through drive configuration and commissioning and uses industry specific terminology in order to provide clear and meaningful terms of reference.

Prerequisite

There are no formal entry requirements for this course but it is assumed that all delegates are technically competent and are suitably qualified to install, operate, commission and maintain AC30V series drives and related products.

Contents

Over the duration of the course, delegates will develop their knowledge of AC30V series products through formal instruction, group discussion and practical exercises. Topics include.

Topics include:

- Basic AC motor theory
- · Basic drive theory
- Drive options and product codes
- Drive software tool
- Practical commissioning
- Key industry segments and example system applications
- Comparaison with 890 drives

Objective

The purpose of this course is to provide a technical introduction to AC30V series drives and to develop a good understanding of the fundamentals of drive applications development.

Price

300.00€

Duration

1 day

Dates/Language

Training in Offenburg

SK-AC30V/P/D/A: April 3rd 2019 English SK-AC30V/P/D/A: October 24th 2019 English

SK-AC30 PDQ



Parker Drive Quicktool (PDQ) Software

Who is it for?

Distributors, Electrical and Maintenance Engineers, OEM and System Integration Engineers, Plant and Maintenance Managers.

Product description

The AC30 industrial drive has been specifically designed to provide users for general purpose applications and dedicated applications. Its flexible and highly modular construction enables a wide range of communications and I/O modules to be easily added as required.

The range is supported by the Parker Drive Quick Tool which is designed to guide users through drive configuration and commissioning and uses industry specific terminology in order to provide clear and meaningful terms of reference.

Prerequisite

Candidates should be familiar with drives and their application and have a knowledge of basic drive programming.

Contents

Over the duration of the course delegates will develop their knowledge of the Parker Drive Designer (PDD) Codesys based programming language.

- Topics included
- Overview of AC30 drive
- Introduction to PDQ
- · Available standard blocks
- Configuring drive projects
- Advanced techniques
- Practical examples

Objective

The purpose of this course is to provide an advanced course focusing on using Codesys function blocks for use in custom configurations.

Price

300.00€

Duration

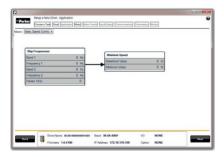
1 day

Dates/Language

Training in Offenburg

SK-AC30PDQ: April 4th 2019 English SK-AC30PDQ: October 25th 2019 English





SK-AC30 PDD



Codesys function using Parker Drive Development tool

Who is it for?

System and Project Engineers looking to develop advanced drive applications.

Product description

The AC30 industrial drive has been specifically designed to provide users with exceptional levels of control for general purpose applications and dedicated applications. Its flexible and highly modular construction enables a wide range of communications and I/O modules to be easily added as required.

Parker Drive Developper is a fully featured PLC programming tool for the AC30 series variable speed drive, supporting all IEC-61131 languages including ladder logic, structured text and function block diagrams. It provides access to all drive parameters and enables the user to create powerful AC30 drive solutions. It's also possible to create custom parameters and menus so the user can describe the setup and status of the drive in the context of their own application.

Prerequisite

Candidates should be familiar with drives and their application and have a knowledge of basic drive programming.

Contents

Over the duration of the course delegates will develop their knowledge of the Parker Drive Designer (PDD) Codesys based programming language.

- Topics included
- Introduction to PDD
- · Available standard blocks
- Creating function blocks
- Available programmation language
- Configuring drive projects
- Advanced technique application
- Practical examples

Objective

The purpose of this course is to provide an advanced course focusing on using Codesys function blocks for use in custom configurations.

Price

450.00€

Duration

1+1/2 days

Dates/Language

Offenburg - English/French (on request)

SK - CMS / Servomotor Training



Brushless/Frameless & ATEX Servomotors SMH/MH/NX/NK/GVM/TM/EX/EY Series

Who is it for?

- ☑ Project managers, design engineers and programmers and commissioners of electric machines and plants.
- ☑ Maintenance and service personnel

Prerequisite

Basic technical training and knowledge or practical experience in this technology

Contents

- ☑ General presentation
- ☑ Terms of use
- ☑ Selection and sizing
- ☑ Application examples

Objective

The purpose of this course is to develop the knowledge of technical and electrical data of servomotors.

Price

300.00€

Duration

1 day

Dates/Language

Training location / date (on request)









Terms of Registration and Entry

Fees

The seminar fee plus VAT per participant is listed in the respective category. If two or more persons from the same company participate, the fee for the second and any further person is reduced by 25%. Parker Hannifin offer the possibility, to hold the seminars at your premises.

The following fees are charged:

☑ We offer an »On-site« training and students rebate (on request)

The seminar fee comprises:

- ☑ Provision of seminar documentation
- ☑ Special practical exercises
- ☑ Participation certificate / bonus offer
- ☑ Coffee, soft drinks
- ☑ Lunch

Registration

Timely registration ensures your participation!

The number of participants is limited to 8 persons per seminar.

Please send a message to rsimak@parker.com

Your registration will be confirmed immediately.

Cancelation

Cancelation by the participants are free of charge up to three weeks before the beginning of the seminar, after that, 50% of the seminar fee must be paid. As an alternative, you may name a replacement.

Copyright

The copying of the seminar documentation is not allowed unless explicitly permitted by Parker Hannifin GmbH.

The copying of the seminar documentation and the usage or disclosure to third persons is not allowed unless explicitly permitted.

Liability

Parker Hannifin reserve the right to cancel seminars even after confirmation in the event of under subscription or other relevant reasons. An alternative date will then be offered.

Parker Hannifin does not accept any further liability

☑ for the information communicated during the seminar

☑ for resulting damages or consequential damages

Please Observe!

The participants commit themselves to respect the valid safety instructions of Parker Hannifin.

Seminar times

Monday - Thursday 08:30 - 16:30 Friday until 15:00

Parker Worldwide

Europe, Middle East, Africa

AE - United Arab Emirates, Dubai Tel: +971 4 8127100 parker.me@parker.com

AT - Austria, St. Florian Tel: +43 (0)7224 66201 parker.austria@parker.com

AZ - Azerbaijan, Baku Tel: +994 50 2233 458 parker.azerbaijan@parker.com

BE/NL/LU - Benelux, Hendrik Ido Ambacht Tel: +31 (0)541 585 000 parker.nl@parker.com

BG - Bulgaria, Sofia Tel: +359 2 980 1344 parker.bulgaria@parker.com

BY – Belarus, Minsk Tel: +48 (0)22 573 24 00 parker.poland@parker.com

CH - Switzerland, Etoy Tel: +41 (0)21 821 87 00 parker.switzerland@parker.com

CZ - Czech Republic, Klecany Tel: +420 284 083 111 parker.czechrepublic@parker.com

DE – Germany, Kaarst Tel: +49 (0)2131 4016 0 parker.germany@parker.com

DK – Denmark, Ballerup Tel: +45 43 56 04 00 parker.denmark@parker.com

ES - Spain, Madrid Tel: +34 902 330 001 parker.spain@parker.com

FI - Finland, Vantaa Tel: +358 (0)20 753 2500 parker.finland@parker.com

FR - France, Contamine s/Arve Tel: +33 (0)4 50 25 80 25 parker.france@parker.com

GR - Greece, Piraeus Tel: +30 210 933 6450 parker.greece@parker.com

HU - Hungary, Budaörs Tel: +36 23 885 470 parker.hungary@parker.com IE - Ireland, Dublin Tel: +353 (0)1 466 6370 parker.ireland@parker.com

IL - Israel

Tel: +39 02 45 19 21 parker.israel@parker.com

IT - Italy, Corsico (MI) Tel: +39 02 45 19 21 parker.italy@parker.com

KZ - Kazakhstan, Almaty Tel: +7 7273 561 000 parker.easteurope@parker.com

NO - Norway, Asker Tel: +47 66 75 34 00 parker.norway@parker.com

PL - Poland, Warsaw Tel: +48 (0)22 573 24 00 parker.poland@parker.com

PT - Portugal

Tel: +351 22 999 7360 parker.portugal@parker.com

RO – Romania, Bucharest Tel: +40 21 252 1382 parker.romania@parker.com

RU - Russia, Moscow Tel: +7 495 645-2156 parker.russia@parker.com

SE - Sweden, Borås Tel: +46 (0)8 59 79 50 00 parker.sweden@parker.com

SK – Slovakia, Banská Bystrica Tel: +421 484 162 252 parker.slovakia@parker.com

SL – Slovenia, Novo Mesto Tel: +386 7 337 6650 parker.slovenia@parker.com

TR - Turkey, Istanbul Tel: +90 216 4997081 parker.turkey@parker.com

UA – Ukraine, Kiev Tel: +48 (0)22 573 24 00 parker.poland@parker.com

UK - United Kingdom, Warwick Tel: +44 (0)1926 317 878 parker.uk@parker.com

ZA – South Africa, Kempton Park Tel: +27 (0)11 961 0700 parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario Tel: +1 905 693 3000

US - USA, Cleveland Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill Tel: +61 (0)2-9634 7777

CN - China, Shanghai Tel: +86 21 2899 5000

HK - Hong Kong Tel: +852 2428 8008

IN - India, Mumbai Tel: +91 22 6513 7081-85

JP - Japan, Tokyo Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul Tel: +82 2 559 0400

MY - Malaysia, Shah Alam Tel: +60 3 7849 0800

NZ - New Zealand, Mt Wellington

Tel: +64 9 574 1744

SG – Singapore Tel: +65 6887 6300

TH - Thailand, Bangkok Tel: +662 186 7000

TW - Taiwan, Taipei Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires Tel: +54 3327 44 4129

BR - Brazil, Sao Jose dos Campos Tel: +55 800 727 5374

CL - Chile, Santiago Tel: +56 2 623 1216

MX - Mexico, Toluca Tel: +52 72 2275 4200

© 2019 Parker Hannifin Corporation. All rights reserved

192-493002N8

January 2019



(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre Toll-free number: 1-800-27 27 537

www.parker.com

Your local authorized Parker distributor