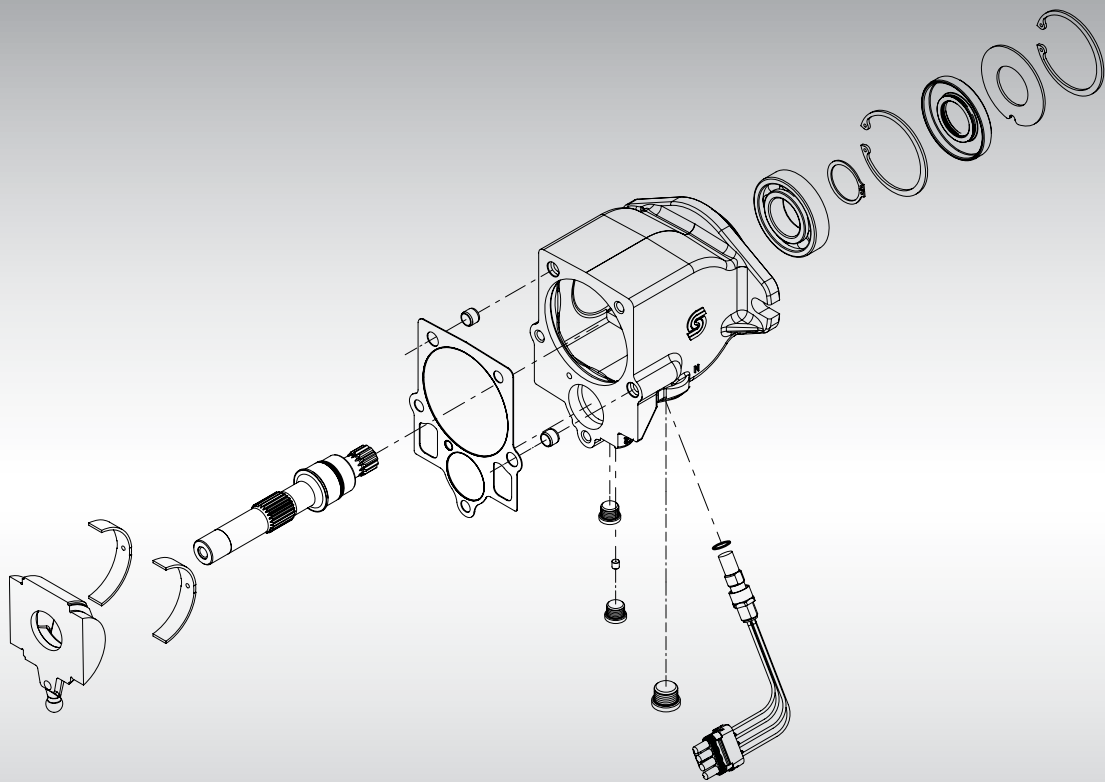




Parts Manual

K and L Frame Variable Motors






Contents

General information	Service parts identification	5
	Nameplate	5
	Date code	6
	Service bulletins.....	6
	Procedure to identify a part.....	6
KV	Order code, KV.....	7
	Common parts	8-9
	Displacement.....	8-9
	Shaft	10-11
	Endcap.....	10-29
	Minimum angle.....	28-25
	Drain orifice.....	30-31
	Housing.....	30-31
	Maximum angle.....	32-33
	Special hardware.....	34-35
LV	Order code, LV	37
	Common parts	38-39
	Displacement.....	38-41
	Shaft	40-41
	Endcap.....	42-61
	Minimum angle.....	60-61
	Drain orifice.....	62-63
	Housing.....	62-63
	Maximum angle.....	64-65
	Special hardware.....	66-67
	Overhaul seal kit.....	68
Service bulletins	SB-1999-056 (LV housing, end cap, and O-ring change).....	69
	SB-2002-021 (LV tapered shaft keyway).....	70
	SB-2005-004 (KV cylinder block kit).....	71
	SB-2006-009 (KV/LV end cap gasket)	72-73
	SB-2009-002 (housing)	74
	SB-2009-037 (LV cylinder block kit)	75-76
	SB-2011-004 (KV/LV seal support washer)	77
	SB-2013-006 (KV/LV lip seal).....	78


General information
Service parts identification

The following information and procedure is used to identify the module group, item number, manufacture date, part number, and part name of the parts included in the K and L frame motors.

The parts listed include all parts which may be used when performing either "Minor Repairs", "Major Repairs" or "Conversions" on the K and L frame motors.

Nameplate

Each unit will have a nameplate affixed to the housing. The nameplate will include the following information.

Model Code

The Danfoss model code completely defines the specific unit and must be used when ordering parts to service this product.

Model Number

The Danfoss model number is used by the factory in manufacturing. On repeat orders, a complete unit can be ordered by the model number.

Serial Number

The Danfoss serial number is used to identify the manufacture date and the unit sequence in the build. The serial number is also used to identify the units warranty time period.

The letter code indicates the location of original manufacture (assembly). "A" indicates the unit was originally assembled in Ames, Iowa, U.S.A.

The first number (2 digits) indicates the year of manufacture. ("01" would indicate the unit was manufactured in 2001)

The second number (2 digits) indicates the calendar week of manufacture.

The third number (5 digits) is a sequential number used to identify a specific unit.




General information
Date code

The date code is defined as the year and week of manufacture. The same item number may list more than one part number. This indicates that there is more than one configuration for that item number. You will see that there are different date codes for the different part numbers. Find the date code of your unit from the nameplate to determine which service part number you need to order.

EXAMPLE: The service part desired is Item B003.

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Usage
C	B003	00-02		9004104-0100	O-ring (SB-1999-056)	1
	B003	99-16	00-01	9004104-1080	O-ring	1

All units using this order code with a date code of 99-16 and up to and including 00-01, must use part number "9004104-1080". All units with a date code of 00-02 and newer must use part number "9004104-0100".

Service bulletins

A Service Bulletin Number (SB-____ - ____) may follow the "Part Name" of the part you desire. You must read that Service Bulletin prior to ordering that part. The information contained in these Service Bulletins, as of the print date of this bulletin, are included at the end of this manual. Service Bulletins contain more detailed information such as interchangeability, what additional parts are involved, etc. It is suggested that you add additional Service Bulletins to this manual as you receive them.

Procedure to identify a part
General

The modular design of K and L frame units result in a simplified service parts list and part number identification procedure.

The same item numbers are used for same part names on all units within a product type. (Example: The lip seal - Item M003, has the same item number on all motors.)

A part number that has another number following it in parentheses is done to make this a world wide manual. The first number is sold in Germany. The number in parentheses is sold in the United States. (Example: 664524 (9005110-9000), customers would order 9005110-9000 if ordering the part in the United States.)

Example of a part identification

The nameplate on a L frame motor has an Order Code of LV 25CN A RNF F07 S N N AF F18 NNN NNN. Use the following procedures to determine the part number of the drive shaft used on this motor.

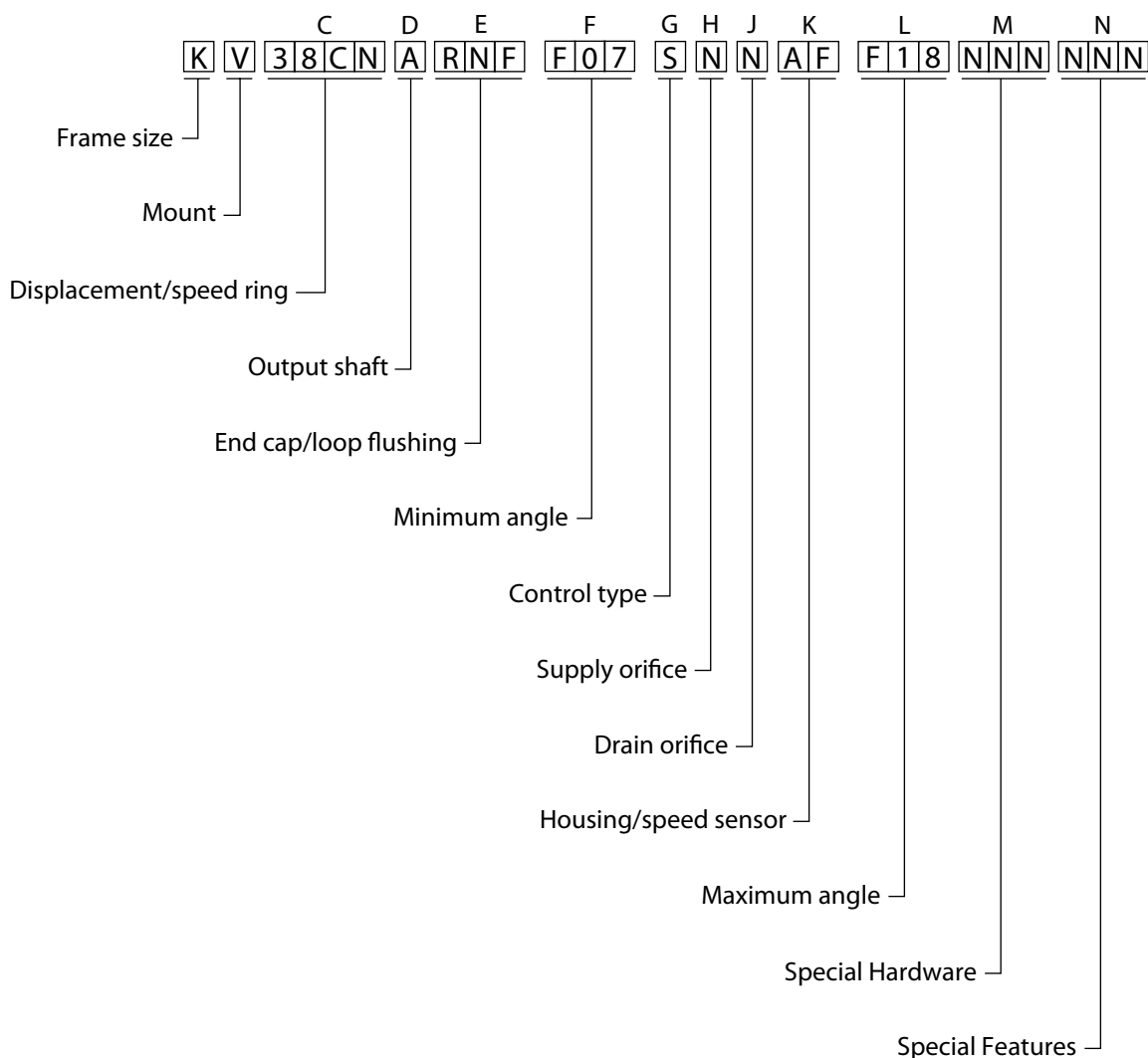
- 1) Referring to the shaft module in the Order Code (see page 7), the shaft option for this motor is identified by the code "A". (LV 25CN A RNF F07 S N N AF F18 NNN NNN)
- 2) Referring to the Service Parts List, find the shaft group. Next find the order code that relates to this unit, which is "A". The shaft is found to be item D001 and part number 4254511.



Notes



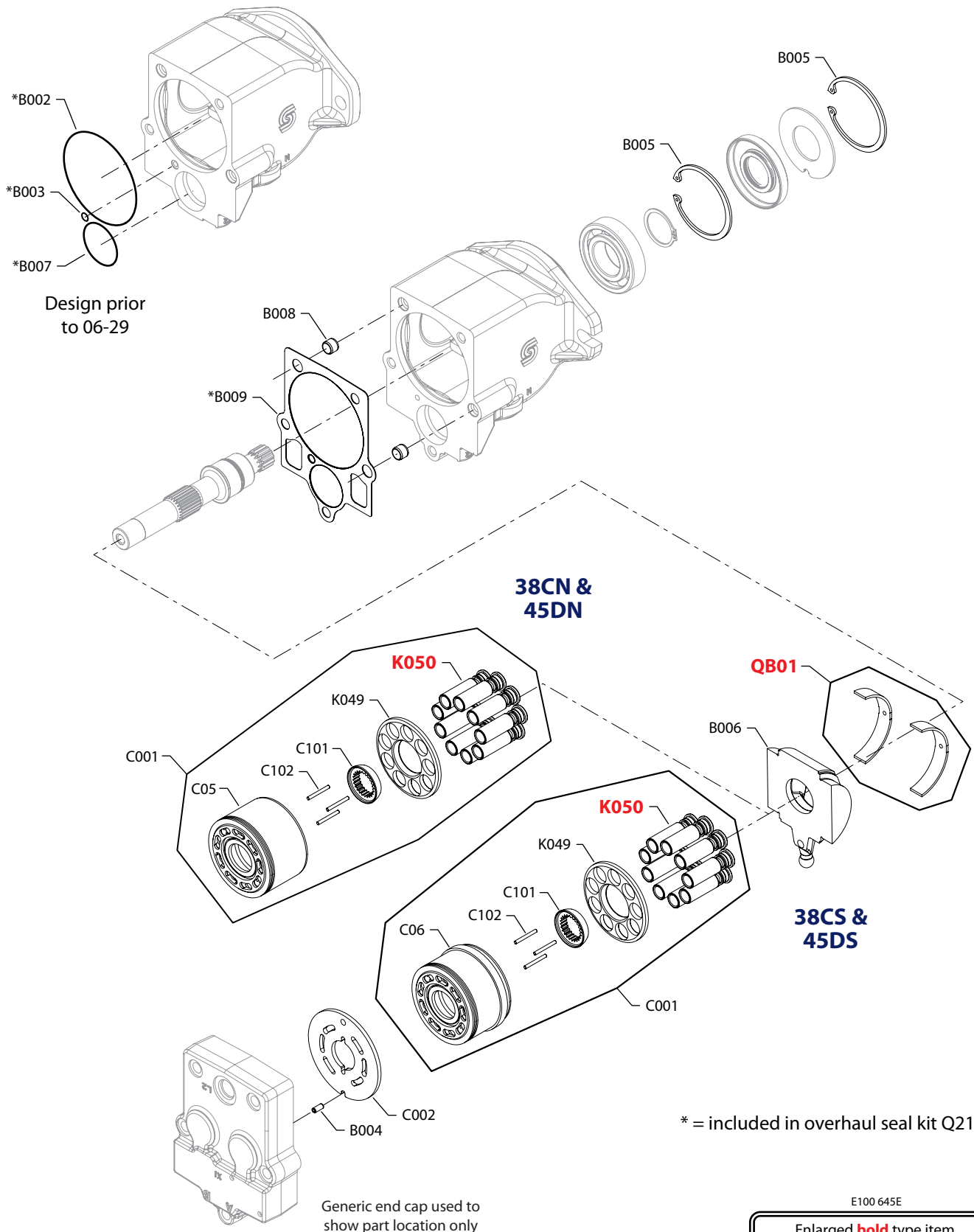
Order code, KV variable displacement motor



P100 654E



KV variable displacement motor



E100 645E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
Common parts

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
V	B002	03-42	06-28	327627 (9004104-1540)	O-ring (SB-2006-009)	1
	B003	03-42	06-28	329441 (9004104-0100)	O-ring (SB-2006-009)	1
	B004	03-42		688622 (9004700-1907)	Pin	1
	B005	03-42		615237 (9006200-0281)	Retaining ring	2
	B006	03-42		4400052	Swashplate	1
	B007	03-42	06-28	4254585	O-ring (SB-2006-009)	1
	B008	06-29		4400090	Locator pin (SB-2006-009)	2
	B009	06-29		4254621	Gasket (SB-2006-009)	1
	QB01	03-42		11147376	Journal bearing kit	2

Displacement

38CN	C001	03-42		11072521	Cylinder block kit (SB-2005-004)	1
	C002	03-42		11024144	Valve plate	1
	C05	05-07		11147698	Cylinder block assembly (SB-2005-004)	1
	C101	05-07		4400077	Slipper retainer guide (SB-2005-004)	1
	C101	03-42	05-06	3103487	Slipper retainer guide	1
	C102	03-42		4700091	Slipper holddown pin	3
	K049	05-07		4400078	Slipper retainer (SB-2005-004)	1
	K049	03-42	05-06	3103488	Slipper retainer	1
	K050	03-42		4400040	Piston assembly	9

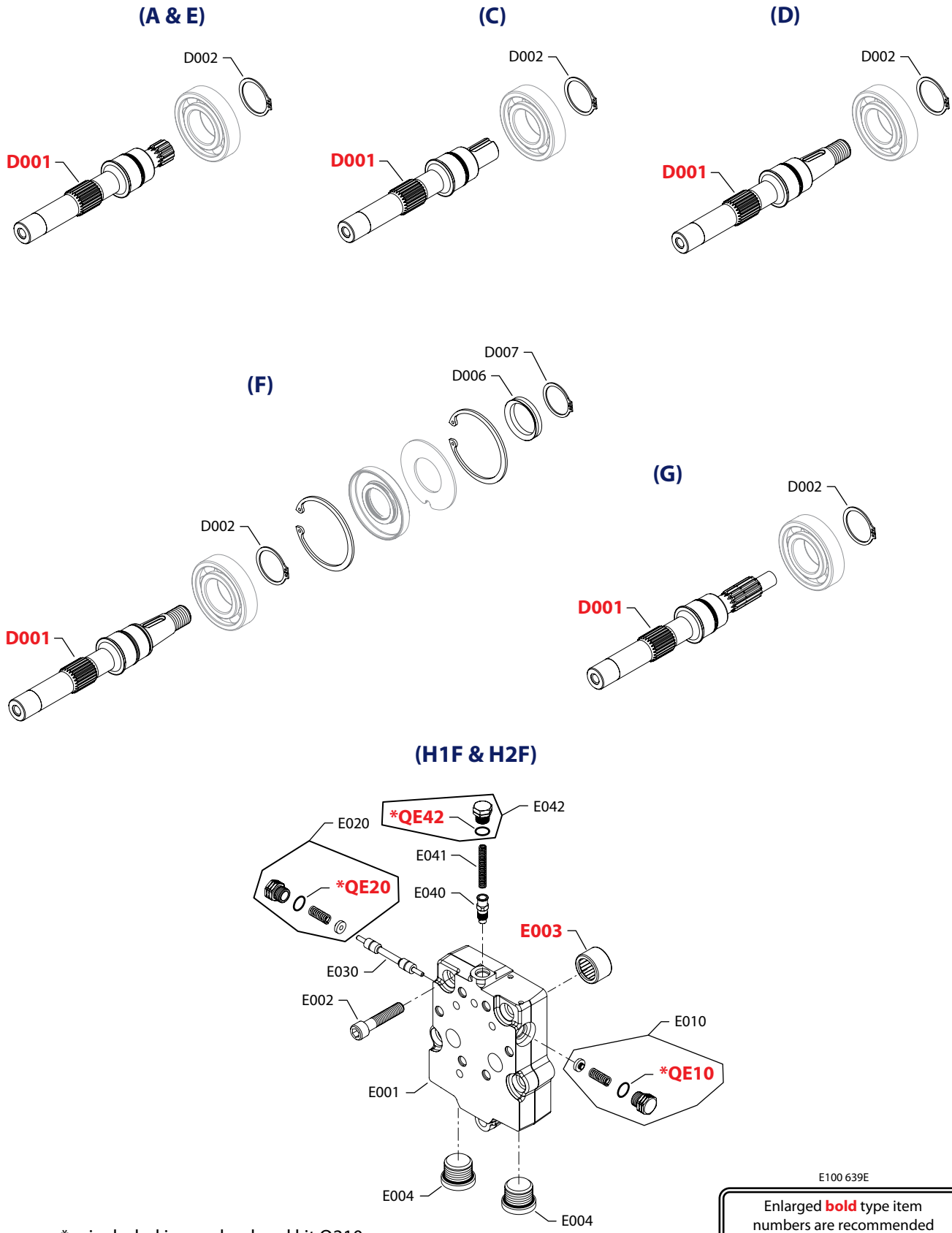
38CS	C001	06-01		11072542	Cylinder block kit w/speed ring	1
	C002	06-01		11024144	Valve plate	1
	C06	06-01		11147699	Cylinder block assembly w/speed ring	1
	C101	06-01		4400077	Slipper retainer guide	1
	C102	06-01		4700091	Slipper holddown pin	3
	K049	06-01		4400078	Slipper retainer	1
	K050	06-01		4400040	Piston assembly	9

45DN	C001	00-37		4400109	Cylinder block kit	1
	C002	03-42		4254018	Valve plate	1
	C05	05-07		11147700	Cylinder block assembly (SB-2005-004)	1
	C101	05-07		4400077	Slipper retainer guide (SB-2005-004)	1
	C101	03-42	05-06	3103487	Slipper retainer guide	1
	C102	03-42		4700091	Slipper holddown pin	3
	K049	05-07		4400078	Slipper retainer (SB-2005-004)	1
	K049	03-42	05-06	3103488	Slipper retainer	1
	K050	03-42		4400041	Piston assembly	9

45DS	C001	06-01		4400135	Cylinder block kit w/speed ring	1
	C002	06-01		4254018	Valve plate	1
	C06	06-01		11147701	Cylinder block assembly	1
	C101	06-01		4400077	Slipper retainer guide	1
	C102	06-01		4700091	Slipper holddown pin	3
	K049	06-01		4400078	Slipper retainer	1
	K050	06-01		4400041	Piston assembly	9



KV variable displacement motor



* = included in overhaul seal kit Q210

E100 639E
 Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
Shaft

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
A	D001	03-42		4254511	Shaft, 13 tooth spline	1
	D002	03-42		9006300-0137	Retaining ring	1
C	D001	03-42		4254509	Shaft, straight key	1
	D002	03-42		9006300-0137	Retaining ring	1
D	D001	03-42		4254568	Shaft, tapered	1
	D002	03-42		9006300-0137	Retaining ring	1
E	D001	03-42		4254557	Shaft, 15 tooth spline	1
	D002	03-42		9006300-0137	Retaining ring	1
F	D001	10-27		11082961	Shaft, tapered	1
	D002	10-27		9006300-0137	Retaining ring	1
	D006	10-27		11083450	Shaft dust seal	1
	D007	10-27		5000365	Retaining ring	1
G	D001	11-30		11096097	Shaft, 15 tooth spline with bearing mount	1
	D002	11-30		9006300-0137	Retaining ring	1

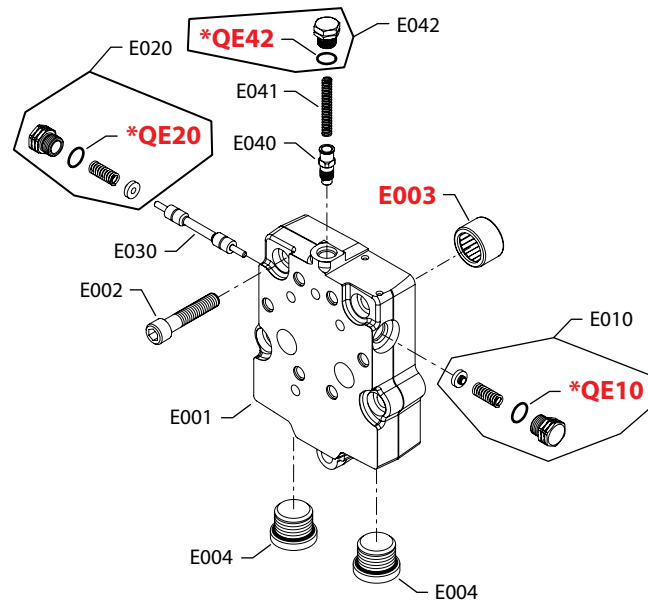
End cap

H1F	E001	12-47		11086489	End cap, radial ports	1
	E002	12-47		680686	Screw	5
	E003	12-47		5000046	Needle bearing	1
	E004	12-47		664524 (9005110-9000)	Plug assembly	2
	E010	12-47		4800912	Loop flushing plug/spring assembly	1
	E020	12-47		4800912	Loop flushing plug/spring assembly	1
	E030	12-47		8800550	Spool	1
	E040	12-47		4800883	Relief valve poppet	1
	E041	12-47		768853	Spring	1
	E042	12-47		4800280	Plug assembly	1
	QE10	12-47		085043 (9004201-3700)	O-ring	1
	QE20	12-47		085043 (9004201-3700)	O-ring	1
	QE42	12-47		015818 (9004201-3100)	O-ring	1
	H2F	E001	12-47		11086489	End cap, radial ports
E002		12-47		680686	Screw	5
E003		12-47		5000046	Needle bearing	1
E004		12-47		664524 (9005110-9000)	Plug assembly	2
E010		12-47		4800912	Loop flushing plug/spring assembly	1
E020		12-47		4800912	Loop flushing plug/spring assembly	1
E030		12-47		8800550	Spool	1
E040		12-47		4800884	Relief valve poppet	1
E041		12-47		768853	Spring	1
E042		12-47		4800280	Plug assembly	1
QE10		12-47		085043 (9004201-3700)	O-ring	1
QE20		12-47		085043 (9004201-3700)	O-ring	1
QE42		12-47		015818 (9004201-3100)	O-ring	1

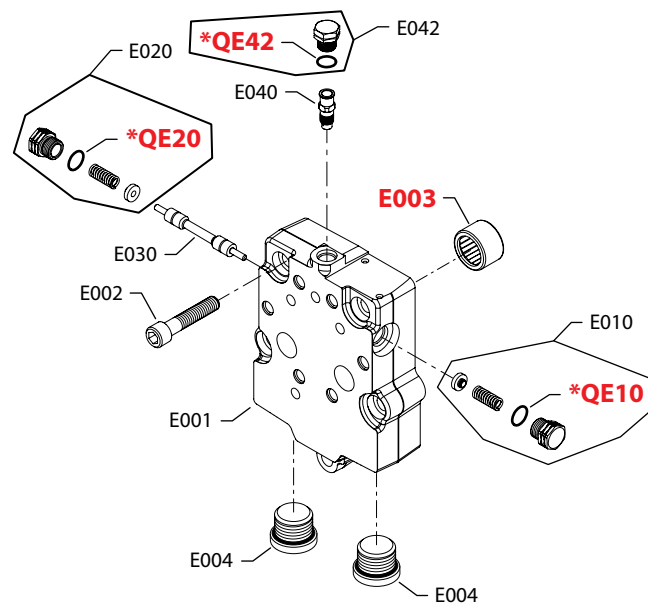


KV variable displacement motor

(H3F & H4F)



(HAF)



* = included in overhaul seal kit Q210

E103 039E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
H3F	E001	12-47		11086489	End cap, radial ports	1
	E002	12-47		680686	Screw	5
	E003	12-47		5000046	Needle bearing	1
	E004	12-47		664524 (9005110-9000)	Plug assembly	2
	E010	12-47		4800912	Loop flushing plug/spring assembly	1
	E020	12-47		4800912	Loop flushing plug/spring assembly	1
	E030	12-47		8800550	Spool	1
	E040	12-47		4800885	Relief valve poppet	1
	E041	12-47		768853	Spring	1
	E042	12-47		4800280	Plug assembly	1
	QE10	12-47		085043 (9004201-3700)	O-ring	1
	QE20	12-47		085043 (9004201-3700)	O-ring	1
	QE42	12-47		015818 (9004201-3100)	O-ring	1

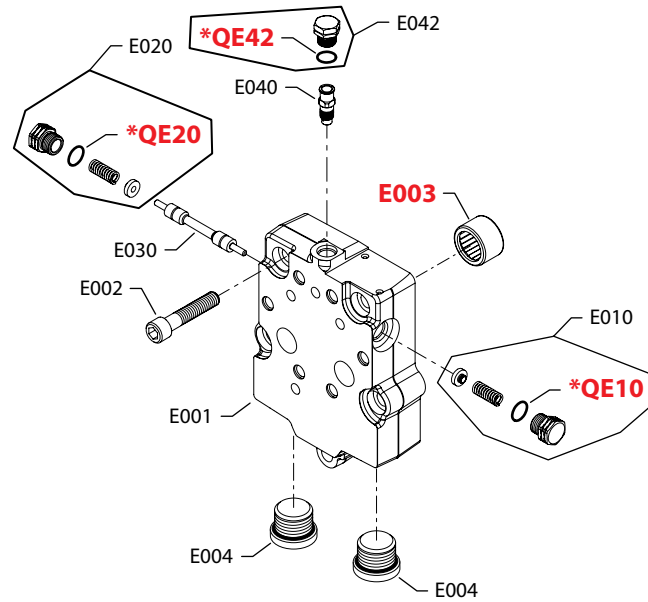
H4F	E001	12-47		11086489	End cap, radial ports	1
	E002	12-47		680686	Screw	5
	E003	12-47		5000046	Needle bearing	1
	E004	12-47		664524 (9005110-9000)	Plug assembly	2
	E010	12-47		4800912	Loop flushing plug/spring assembly	1
	E020	12-47		4800912	Loop flushing plug/spring assembly	1
	E030	12-47		8800550	Spool	1
	E040	12-47		11028490	Relief valve poppet	1
	E041	12-47		768853	Spring	1
	E042	12-47		4800280	Plug assembly	1
	QE10	12-47		085043 (9004201-3700)	O-ring	1
	QE20	12-47		085043 (9004201-3700)	O-ring	1
	QE42	12-47		015818 (9004201-3100)	O-ring	1

HAF	E001	13-05		11086489	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800883	Relief valve poppet	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

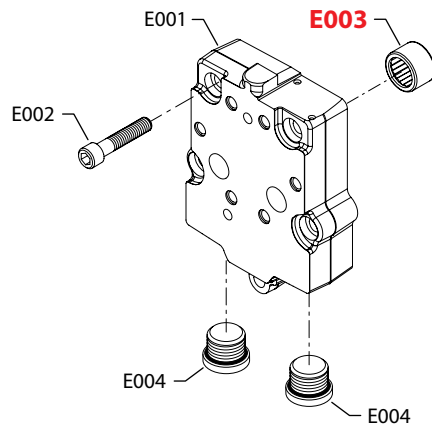


KV variable displacement motor

(HBF & HCF)



(HNF)



* = included in overhaul seal kit Q210

E103 040E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
HBF	E001	13-05		11086489	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800884	Relief valve poppet	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

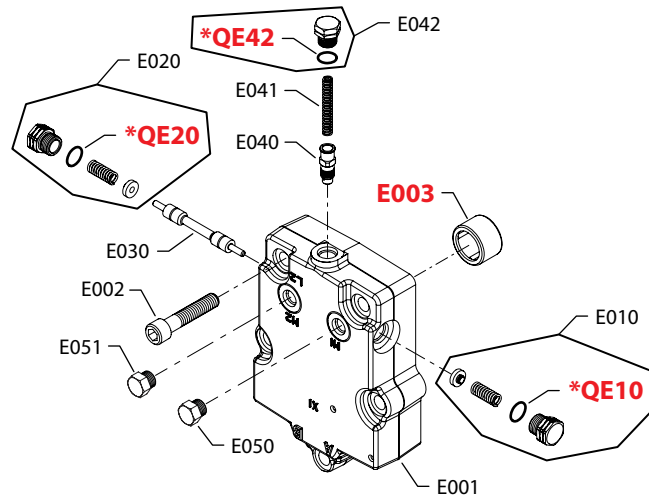
HCF	E001	13-05		11086489	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800885	Relief valve poppet	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

HNF	E001	12-47		11097448	End cap, radial ports	1
	E002	12-47		680686	Screw	5
	E003	12-47		5000046	Needle bearing	1
	E004	12-47		664524 (9005110-9000)	Plug assembly	2



KV variable displacement motor

(R1F, R2F & R3F)



* = included in overhaul seal kit Q210

E103 041E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
R1F	E001	12-47		11120347	End cap, radial ports	1
	E002	12-47		680686	Screw	5
	E003	12-47		5000046	Needle bearing	1
	E010	12-47		4800912	Loop flushing plug/spring assembly	1
	E020	12-47		4800912	Loop flushing plug/spring assembly	1
	E030	12-47		8800550	Spool	1
	E040	12-47		4800883	Relief valve poppet	1
	E041	12-47		768853	Spring	1
	E042	12-47		4800280	Plug assembly	1
	E050	12-47		001511 (9005100-4400)	Plug assembly	1
	E051	12-47		001511 (9005100-4400)	Plug assembly	1
	QE10	12-47		085043 (9004201-3700)	O-ring	1
	QE20	12-47		085043 (9004201-3700)	O-ring	1
	QE42	12-47		015818 (9004201-3100)	O-ring	1

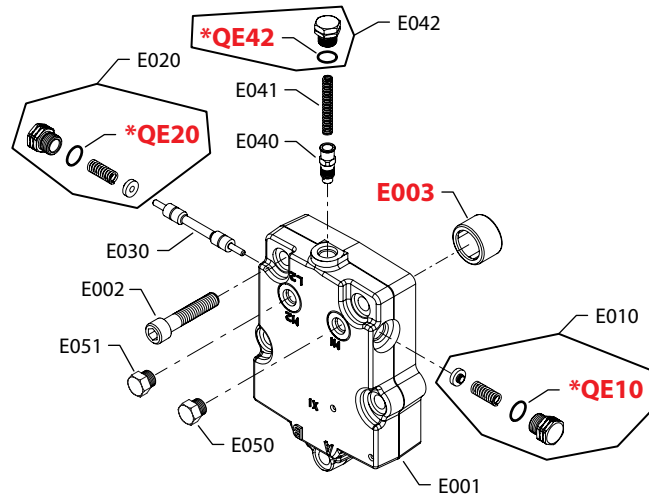
R2F	E001	08-04		11120347	End cap, radial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E010	08-04		4800912	Loop flushing plug/spring assembly	1
	E020	08-04		4800912	Loop flushing plug/spring assembly	1
	E030	08-04		8800550	Spool	1
	E040	08-04		4800884	Relief valve poppet	1
	E041	08-04		768853	Spring	1
	E042	08-04		4800280	Plug assembly	1
	E050	08-04		001511 (9005100-4400)	Plug assembly	1
	E051	08-04		001511 (9005100-4400)	Plug assembly	1
	QE10	08-04		085043 (9004201-3700)	O-ring	1
	QE20	08-04		085043 (9004201-3700)	O-ring	1
	QE42	08-04		015818 (9004201-3100)	O-ring	1

R3F	E001	08-04		11120347	End cap, radial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E010	08-04		4800912	Loop flushing plug/spring assembly	1
	E020	08-04		4800912	Loop flushing plug/spring assembly	1
	E030	08-04		8800550	Spool	1
	E040	08-04		4800885	Relief valve poppet	1
	E041	08-04		768853	Spring	1
	E042	08-04		4800280	Plug assembly	1
	E050	08-04		001511 (9005100-4400)	Plug assembly	1
	E051	08-04		001511 (9005100-4400)	Plug assembly	1
	QE10	08-04		085043 (9004201-3700)	O-ring	1
	QE20	08-04		085043 (9004201-3700)	O-ring	1
	QE42	08-04		015818 (9004201-3100)	O-ring	1

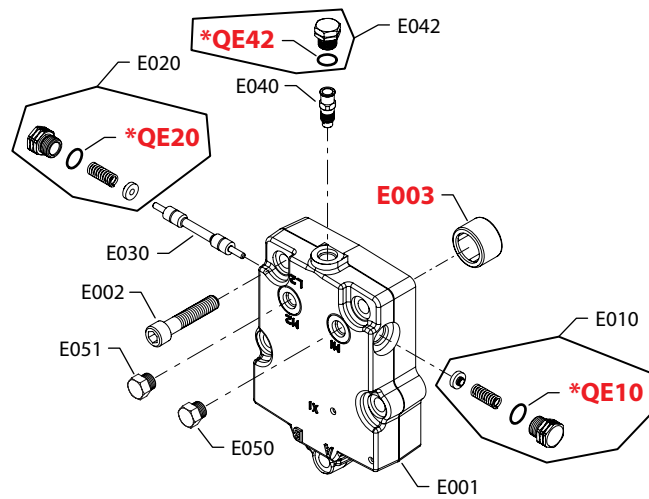


KV variable displacement motor

(R4F)



(RAF & RBF)



* = included in overhaul seal kit Q210

E103 042E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
R4F	E001	08-18		11120347	End cap, radial ports	1
	E002	08-18		680686	Screw	5
	E003	08-18		5000046	Needle bearing	1
	E010	08-18		4800912	Loop flushing plug/spring assembly	1
	E020	08-18		4800912	Loop flushing plug/spring assembly	1
	E030	08-18		8800550	Spool	1
	E040	08-18		11028490	Relief valve poppet	1
	E041	08-18		768853	Spring	1
	E042	08-18		4800280	Plug assembly	1
	E050	08-18		001511 (9005100-4400)	Plug assembly	1
	E051	08-18		001511 (9005100-4400)	Plug assembly	1
	QE10	08-18		085043 (9004201-3700)	O-ring	1
	QE20	08-18		085043 (9004201-3700)	O-ring	1
	QE42	08-18		015818 (9004201-3100)	O-ring	1

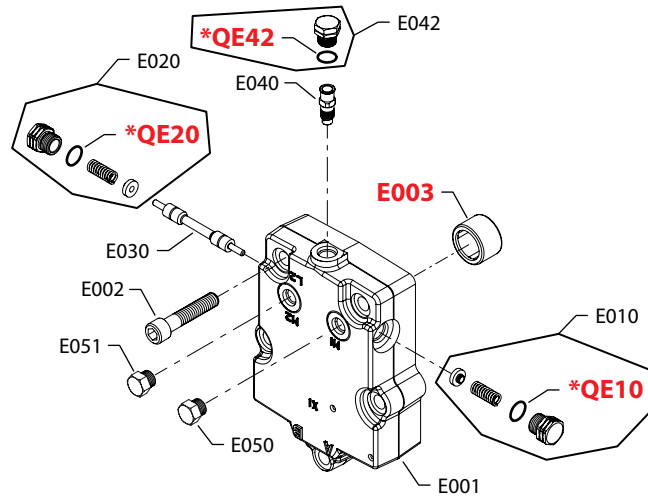
RAF	E001	12-22		11120347	End cap, radial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800883	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

RBF	E001	12-22		11120347	End cap, radial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800884	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

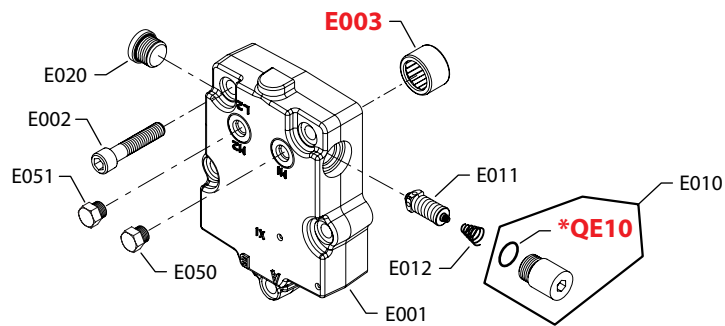


KV variable displacement motor

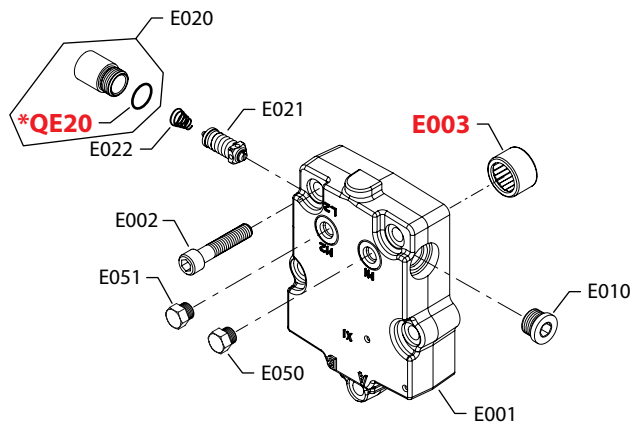
(RCF)



(RDF & RFF)



(REF)



* = included in overhaul seal kit Q210

E103 043E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
RCF	E001	12-22		11120347	End cap, radial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800885	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

RDF	E001	13-36		11120749	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		11126727	SCR plug assembly	1
	E011	13-36		3103375-0345	SCR valve assembly, 345 bar [5000 psi]	1
	E012	13-36		4800661	Spring	1
	E020	13-36		681296 (9005110-7500)	Plug assembly	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE10	13-36		001131 (9004201-5000)	O-ring	1

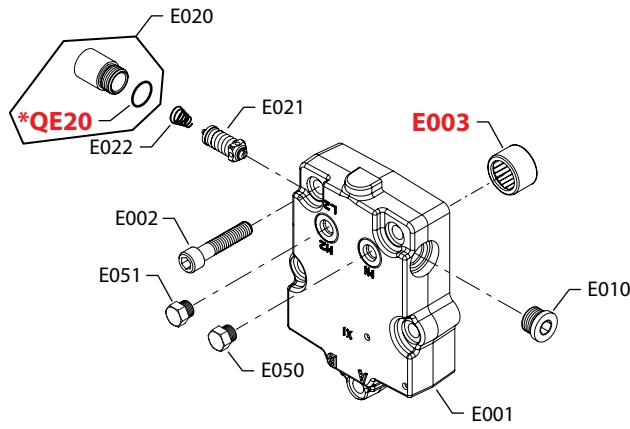
REF	E001	13-36		11120749	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		681296 (9005110-7500)	Plug assembly	1
	E020	13-36		11126727	SCR plug assembly	1
	E021	13-36		3103375-0345	SCR valve assembly, 345 bar [5000 psi]	1
	E022	13-36		4800661	Spring	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE20	13-36		001131 (9004201-5000)	O-ring	1

RFF	E001	13-36		11120749	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		11126727	SCR plug assembly	1
	E011	13-36		3103375-0280	SCR valve assembly, 280 bar [4060 psi]	1
	E012	13-36		4800661	Spring	1
	E020	13-36		681296 (9005110-7500)	Plug assembly	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE10	13-36		001131 (9004201-5000)	O-ring	1

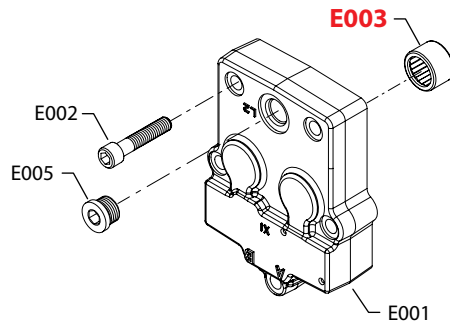


KV variable displacement motor

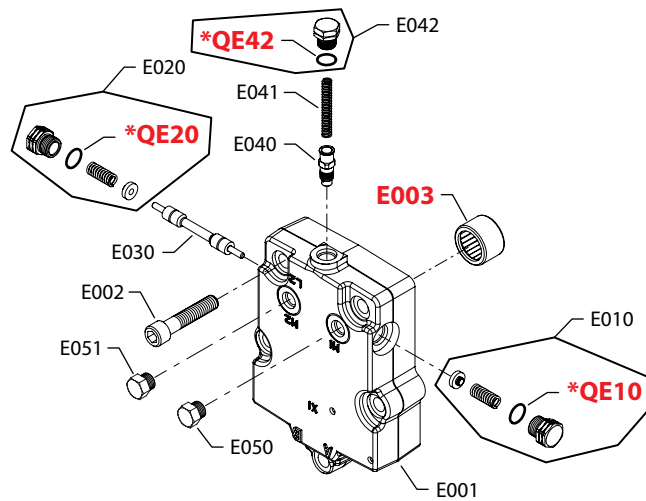
(RGF)



(RNF)



(Y1F)



* = included in overhaul seal kit Q210

E103 044E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing

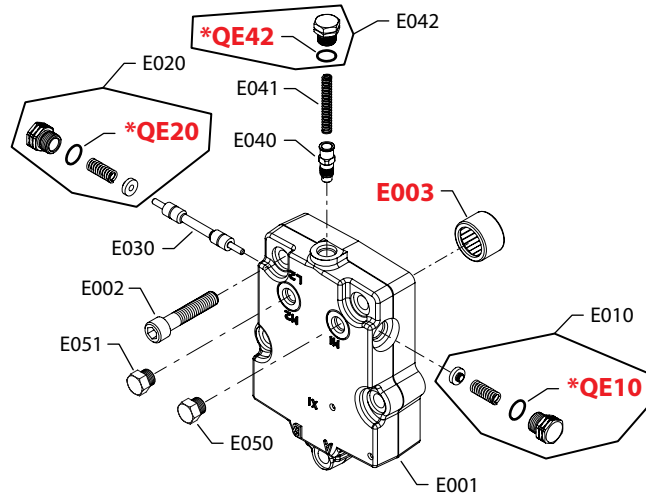

KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
RGF	E001	13-36		11120749	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		681296 (9005110-7500)	Plug assembly	1
	E020	13-36		11126727	SCR plug assembly	1
	E021	13-36		3103375-0280	SCR valve assembly, 280 bar [4060 psi]	1
	E022	13-36		4800661	Spring	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE20	13-36		001131 (9004201-5000)	O-ring	1
RNF	E001	08-04		4400148	End cap, radial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E005	08-04		681296 (9005110-7500)	Plug assembly	1
Y1F	E001	08-04		11120346	End cap, axial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E006	08-04		515965 (9005110-5600)	Plug assembly	1
	E007	08-04		664524 (9005110-9000)	Plug assembly	2
	E010	08-04		4800912	Loop flushing plug/spring assembly	1
	E020	08-04		4800912	Loop flushing plug/spring assembly	1
	E030	08-04		8800550	Spool	1
	E040	08-04		4800883	Relief valve poppet	1
	E041	08-04		768853	Spring	1
	E042	08-04		4800280	Plug assembly	1
	E050	08-04		001511 (9005100-4400)	Plug assembly	1
	E051	08-04		001511 (9005100-4400)	Plug assembly	1
	QE10	08-04		085043 (9004201-3700)	O-ring	1
	QE20	08-04		085043 (9004201-3700)	O-ring	1
	QE42	08-04		015818 (9004201-3100)	O-ring	1



KV variable displacement motor

(Y2F, Y3F & Y4F)



* = included in overhaul seal kit Q210

E103 045E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
Y2F	E001	08-04		11120346	End cap, axial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E006	08-04		515965 (9005110-5600)	Plug assembly	1
	E007	08-04		664524 (9005110-9000)	Plug assembly	2
	E010	08-04		4800912	Loop flushing plug/spring assembly	1
	E020	08-04		4800912	Loop flushing plug/spring assembly	1
	E030	08-04		8800550	Spool	1
	E040	08-04		4800884	Relief valve poppet	1
	E041	08-04		768853	Spring	1
	E042	08-04		4800280	Plug assembly	1
	E050	08-04		001511 (9005100-4400)	Plug assembly	1
	E051	08-04		001511 (9005100-4400)	Plug assembly	1
	QE10	08-04		085043 (9004201-3700)	O-ring	1
	QE20	08-04		085043 (9004201-3700)	O-ring	1
	QE42	08-04		015818 (9004201-3100)	O-ring	1

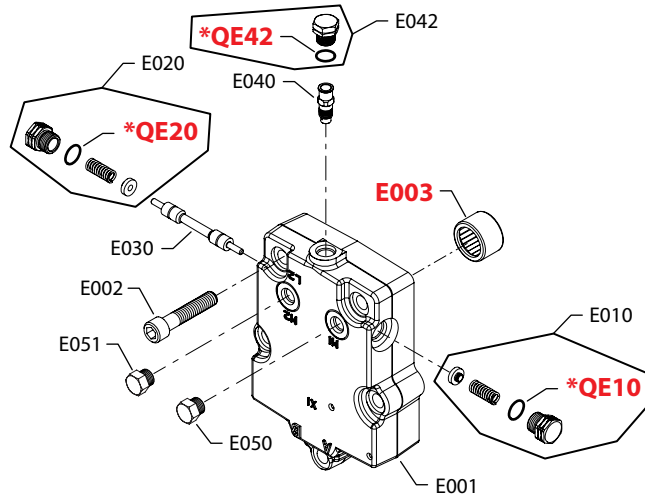
Y3F	E001	08-04		11120346	End cap, axial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E006	08-04		515965 (9005110-5600)	Plug assembly	1
	E007	08-04		664524 (9005110-9000)	Plug assembly	2
	E010	08-04		4800912	Loop flushing plug/spring assembly	1
	E020	08-04		4800912	Loop flushing plug/spring assembly	1
	E030	08-04		8800550	Spool	1
	E040	08-04		4800885	Relief valve poppet	1
	E041	08-04		768853	Spring	1
	E042	08-04		4800280	Plug assembly	1
	E050	08-04		001511 (9005100-4400)	Plug assembly	1
	E051	08-04		001511 (9005100-4400)	Plug assembly	1
	QE10	08-04		085043 (9004201-3700)	O-ring	1
	QE20	08-04		085043 (9004201-3700)	O-ring	1
	QE42	08-04		015818 (9004201-3100)	O-ring	1

Y4F	E001	08-18		11120346	End cap, axial ports	1
	E002	08-18		680686	Screw	5
	E003	08-18		5000046	Needle bearing	1
	E006	08-18		515965 (9005110-5600)	Plug assembly	1
	E007	08-18		664524 (9005110-9000)	Plug assembly	2
	E010	08-18		4800912	Loop flushing plug/spring assembly	1
	E020	08-18		4800912	Loop flushing plug/spring assembly	1
	E030	08-18		8800550	Spool	1
	E040	08-18		11028490	Relief valve poppet	1
	E041	08-18		768853	Spring	1
	E042	08-18		4800280	Plug assembly	1
	E050	08-18		001511 (9005100-4400)	Plug assembly	1
	E051	08-18		001511 (9005100-4400)	Plug assembly	1
	QE10	08-18		085043 (9004201-3700)	O-ring	1
	QE20	08-18		085043 (9004201-3700)	O-ring	1
	QE42	08-18		015818 (9004201-3100)	O-ring	1



KV variable displacement motor

(YAF, YBF & YCF)



* = included in overhaul seal kit Q210

E103 046E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
YAF	E001	12-22		11120346	End cap, axial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E006	12-22		515965 (9005110-5600)	Plug assembly	1
	E007	12-22		664524 (9005110-9000)	Plug assembly	2
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800883	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

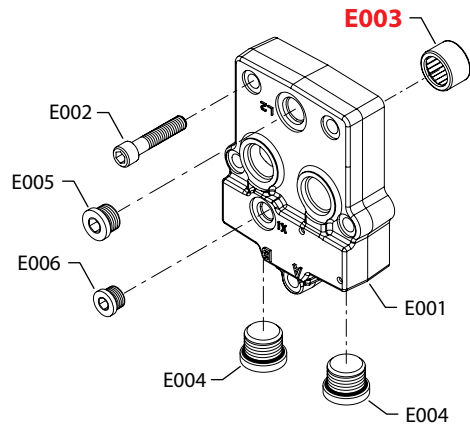
YBF	E001	12-22		11120346	End cap, axial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E006	12-22		515965 (9005110-5600)	Plug assembly	1
	E007	12-22		664524 (9005110-9000)	Plug assembly	2
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800884	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

YCF	E001	12-22		11120346	End cap, axial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E006	12-22		515965 (9005110-5600)	Plug assembly	1
	E007	12-22		664524 (9005110-9000)	Plug assembly	2
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800885	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

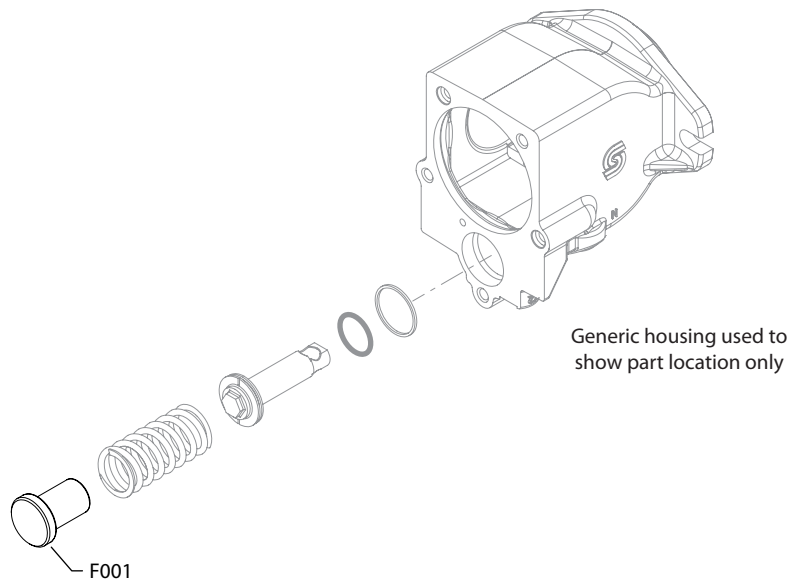


KV variable displacement motor

(YNF)



(F01 - FX1)



E103 047E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
YNF	E001	08-04		4400146	End cap, axial ports	1
	E002	08-04		680686	Screw	5
	E003	08-04		5000046	Needle bearing	1
	E005	08-04		681296 (9005110-7500)	Plug assembly	1
	E006	08-04		515965 (9005110-5600)	Plug assembly	1
	E007	08-04		664524 (9005110-9000)	Plug assembly	2

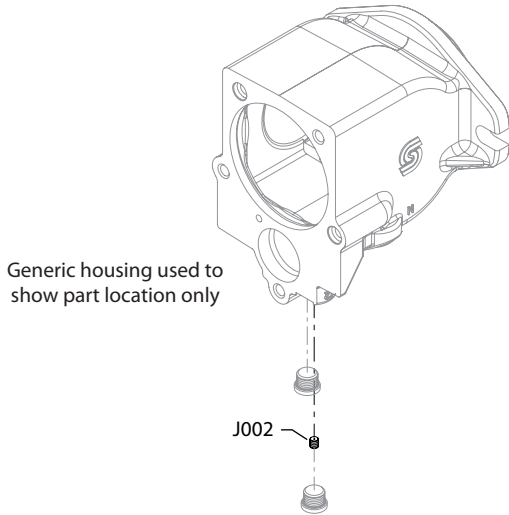
Minimum angle

F00	F001	03-42		4254505	Spring seat, 0 degree	1
F01	F001	03-42		4254087	Spring seat, 1 degree	1
F06	F001	03-42		4254086	Spring seat, 6 degree	1
F07	F001	03-42		4254085	Spring seat, 7 degree	1
F08	F001	03-42		4254083	Spring seat, 8 degree	1
F09	F001	03-42		4254081	Spring seat, 9 degree	1
F10	F001	03-42		4254079	Spring seat, 10 degree	1
F11	F001	03-42		4254078	Spring seat, 11 degree	1
F12	F001	03-42		4254077	Spring seat, 12 degree	1
F13	F001	03-42		4254076	Spring seat, 13 degree	1
F45	F001	03-42		11057140	Spring seat, 4,5 degree	1
F55	F001	03-42		4254503	Spring seat, 5,5 degree	1
F65	F001	03-42		4254548	Spring seat, 6,5 degree	1
F75	F001	03-42		4254084	Spring seat, 7,5 degree	1
F85	F001	03-42		4254082	Spring seat, 8,5 degree	1
F95	F001	03-42		4254080	Spring seat, 9,5 degree	1
FX1	F001	03-42		4254088	Spring seat, -1 degree	1

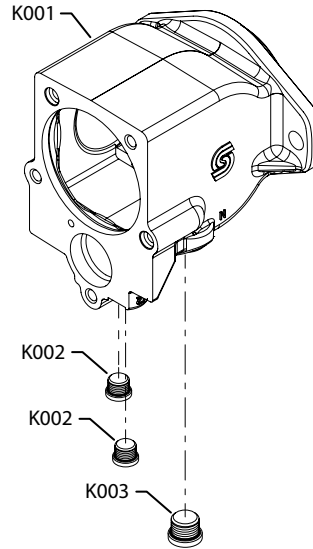


KV variable displacement motor

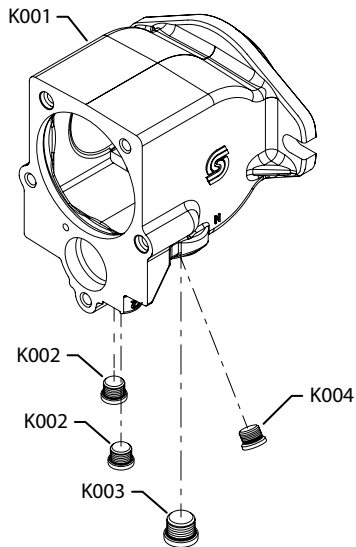
(1, 2, 3 & X)



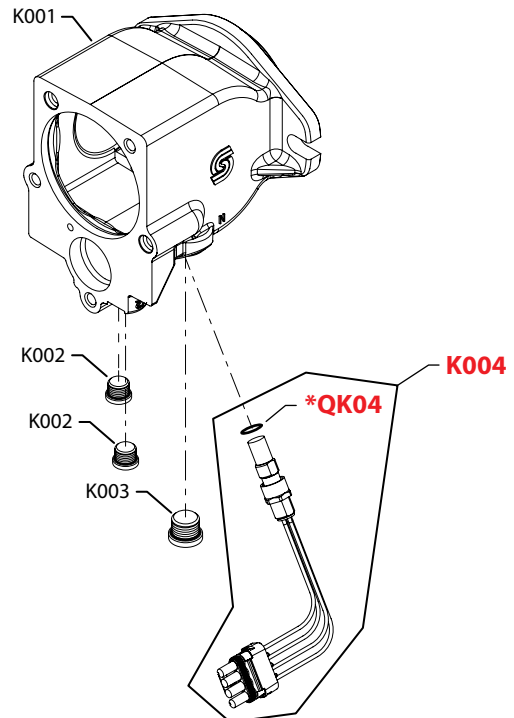
(AF)



(BF)



(CF, DF, EF & FF)



* = included in overhaul seal kit Q210

E100 640E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
Drain orifice

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
1	J002	03-42		763680	Orifice, 0.6 mm	1
2	J002	03-42		739136	Orifice, 0.7 mm	1
3	J002	03-42		739144	Orifice, 0.8 mm	1
N				None		
X	J002	03-42		092114	Set screw	1

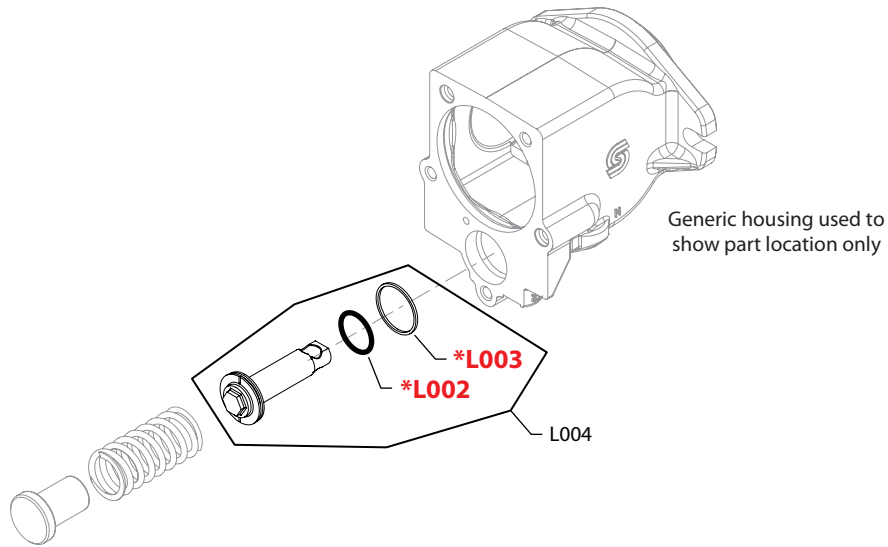
Housing

AF	K001	03-42		4254607	Housing	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plug assembly	1
BF	K001	03-42		11058841	Housing (SB-2009-002)	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plugassembly	1
	K004	03-42		515965 (9005110-5600)	Plug assembly	1
CF	K001	03-42		11058841	Housing (SB-2009-002)	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plugassembly	1
	K004	03-42		KPPG13408	Speed sensor	1
	QK04	03-42		085043 (9004201-3700)	O-ring	1
DF	K001	03-42		11058841	Housing (SB-2009-002)	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plugassembly	1
	K004	03-42		KPPG13704	Speed sensor	1
	QK04	03-42		085043 (9004201-3700)	O-ring	1
EF	K001	03-42		11058841	Housing (SB-2009-002)	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plugassembly	1
	K004	03-42		KPPG16008	Speed sensor	1
	QK04	03-42		085043 (9004201-3700)	O-ring	1
FF	K001	03-42		11058841	Housing (SB-2009-002)	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plugassembly	1
	K004	03-42		KPPG16708B	Speed sensor	1
	QK04	03-42		085043 (9004201-3700)	O-ring	1



KV variable displacement motor

(F12 - F18)



* = included in overhaul seal kit Q210

E100 641E

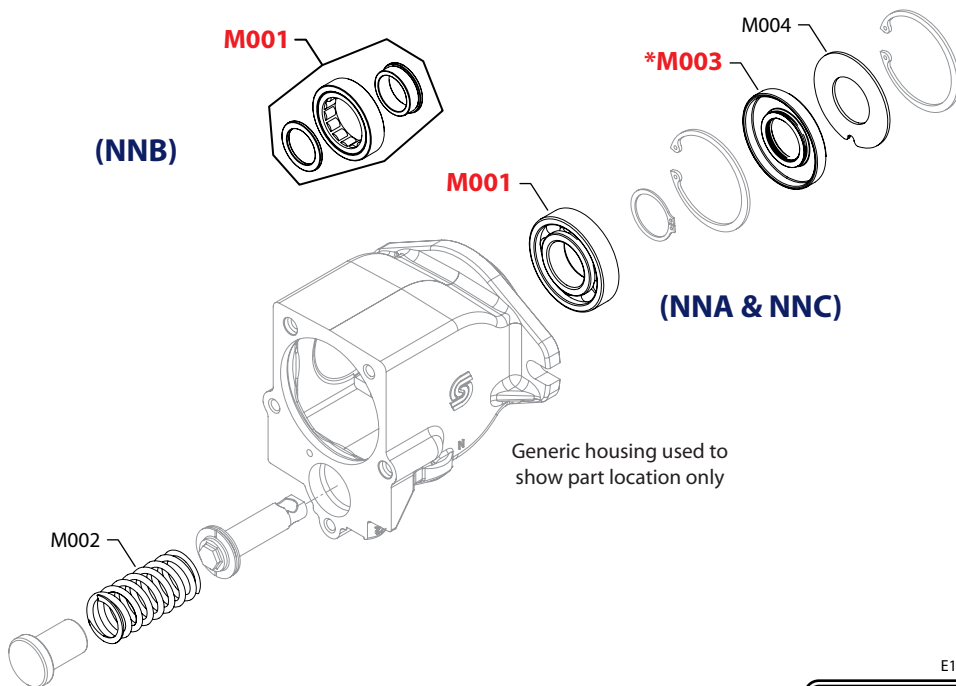
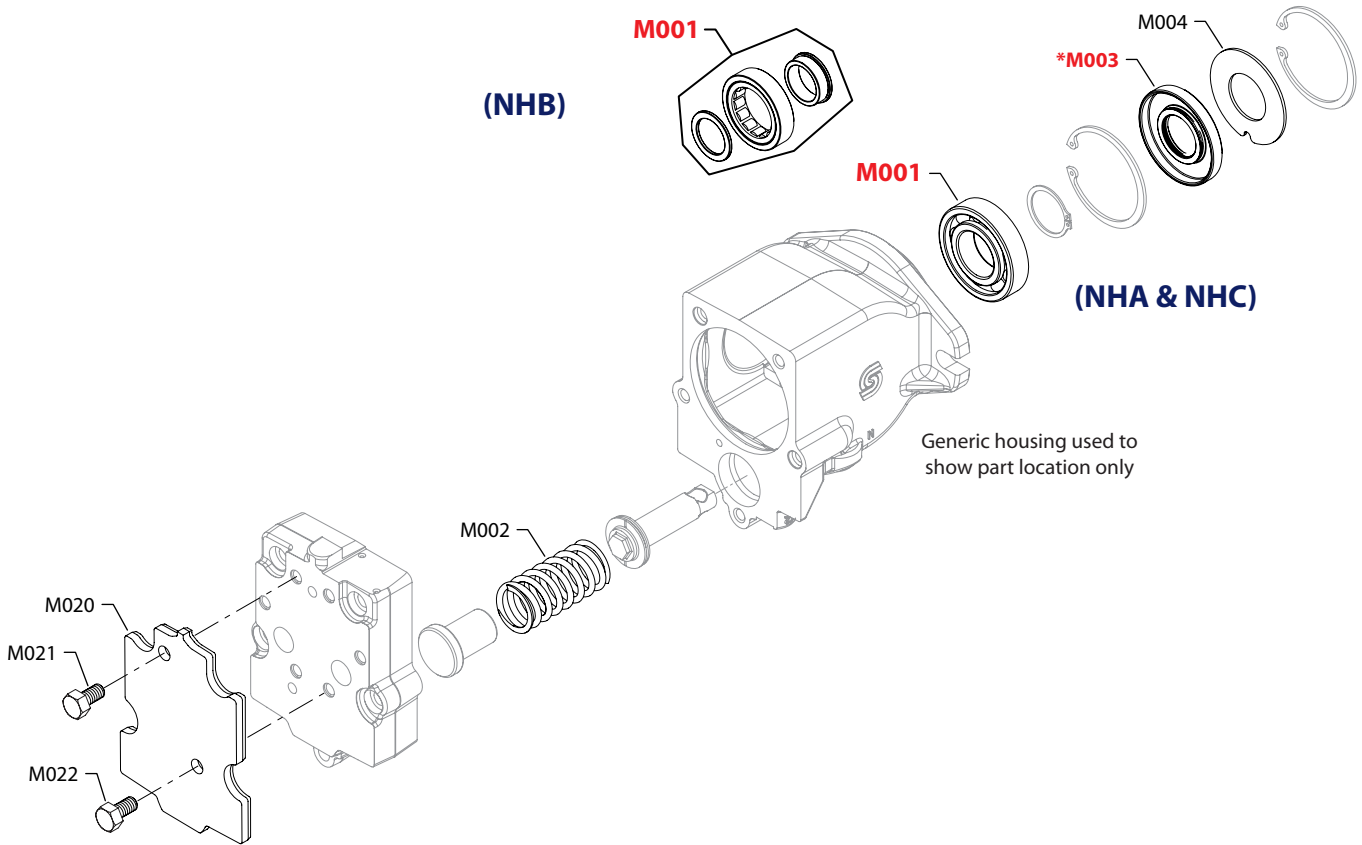
Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
Maximum angle

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F12	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		11106004	Servo piston assembly, 12 degree	1
F13	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		4254579	Servo piston assembly, 13 degree	1
F14	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		4254578	Servo piston assembly, 14 degree	1
F15	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		4254577	Servo piston assembly, 15 degree	1
F16	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		4254576	Servo piston assembly, 16 degree	1
F17	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		4254575	Servo piston assembly, 17 degree	1
F18	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	L004	03-42		4254574	Servo piston assembly, 18 degree	1



KV variable displacement motor



E103 048E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
Special hardware

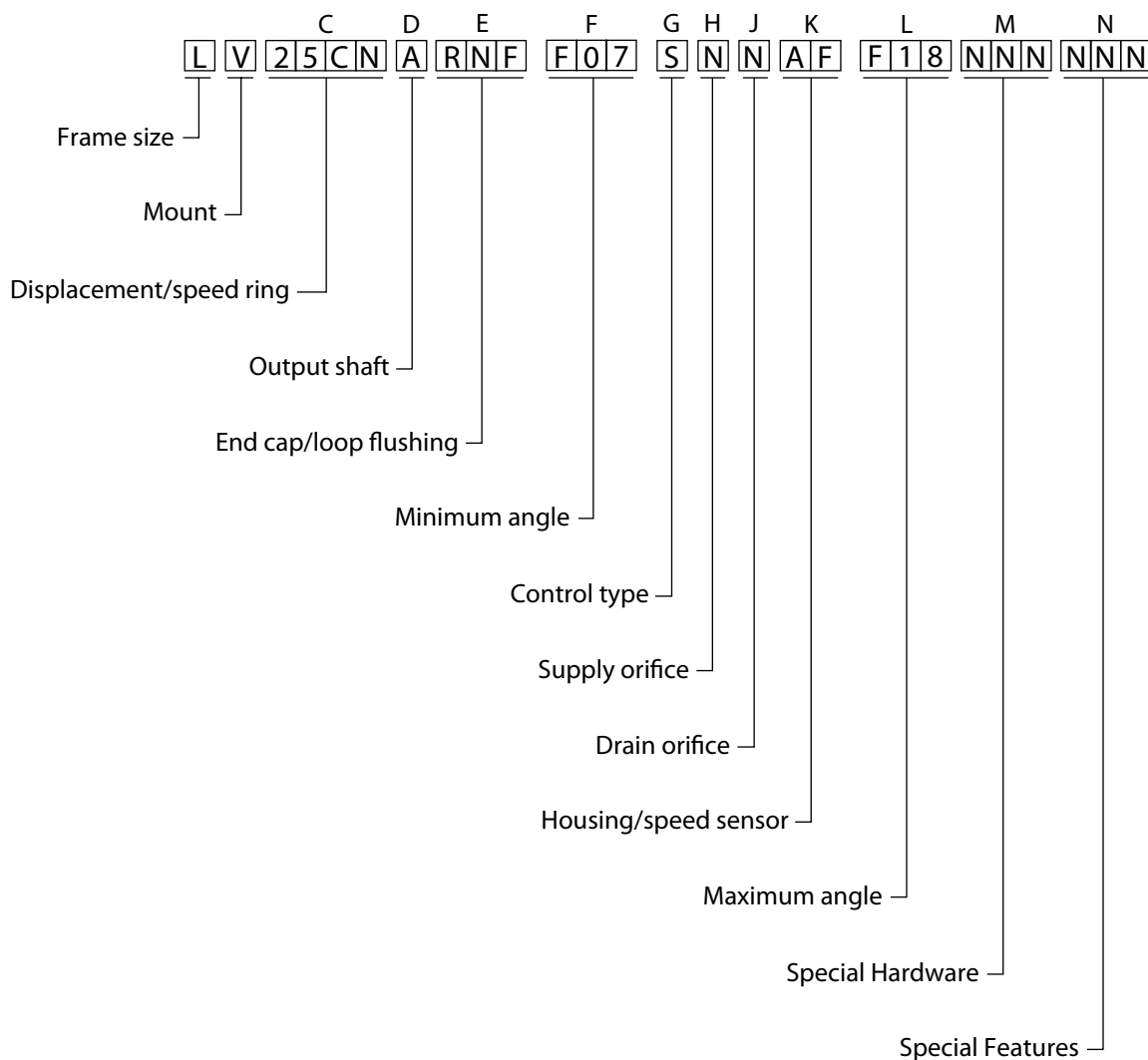
Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
NHA	M001	13-36		11060400	Ball bearing	1
	M002	13-36		4254073	Spring	1
	M003	13-36		11103135	Lip seal (SB-2013-006)	1
	M004	13-36		11083729	Seal support washer (SB-2011-004)	1
	M020	13-36		11087524	Cover	1
	M021	13-36		370247	Screw	1
	M022	13-36		370247	Screw	1
	NHB	M001	13-36		357616	Roller bearing
M002		13-36		4254073	Spring	1
M003		13-36		11103135	Lip seal (SB-2013-006)	1
M004		13-36		11083729	Seal support washer (SB-2011-004)	1
M020		13-36		11087524	Cover	1
M021		13-36		370247	Screw	1
M022		13-36		370247	Screw	1
NHC		M001	12-47		5000731	Ball bearing
	M002	12-47		4254073	Spring	1
	M003	12-47		11103135	Lip seal (SB-2013-006)	1
	M004	12-47		11083729	Seal support washer (SB-2011-004)	1
	M020	12-47		11087524	Cover	1
	M021	12-47		370247	Screw	1
	M022	12-47		370247	Screw	1
	NNA	M001	12-47		11060400	Ball bearing
M002		12-47		4254073	Spring	1
M003		12-47		11103135	Lip seal (SB-2013-006)	1
M004		12-47		11083729	Seal support washer (SB-2011-004)	1
NNB	M001	12-47		357616	Roller bearing	1
	M002	12-47		4254073	Spring	1
	M003	12-47		11103135	Lip seal (SB-2013-006)	1
	M004	12-47		11083729	Seal support washer (SB-2011-004)	1
NNN	M001	12-47		5000731	Ball bearing	1
	M002	12-47		4254073	Spring	1
	M003	12-47		11103135	Lip seal (SB-2013-006)	1
	M004	12-47		11083729	Seal support washer (SB-2011-004)	1



Notes



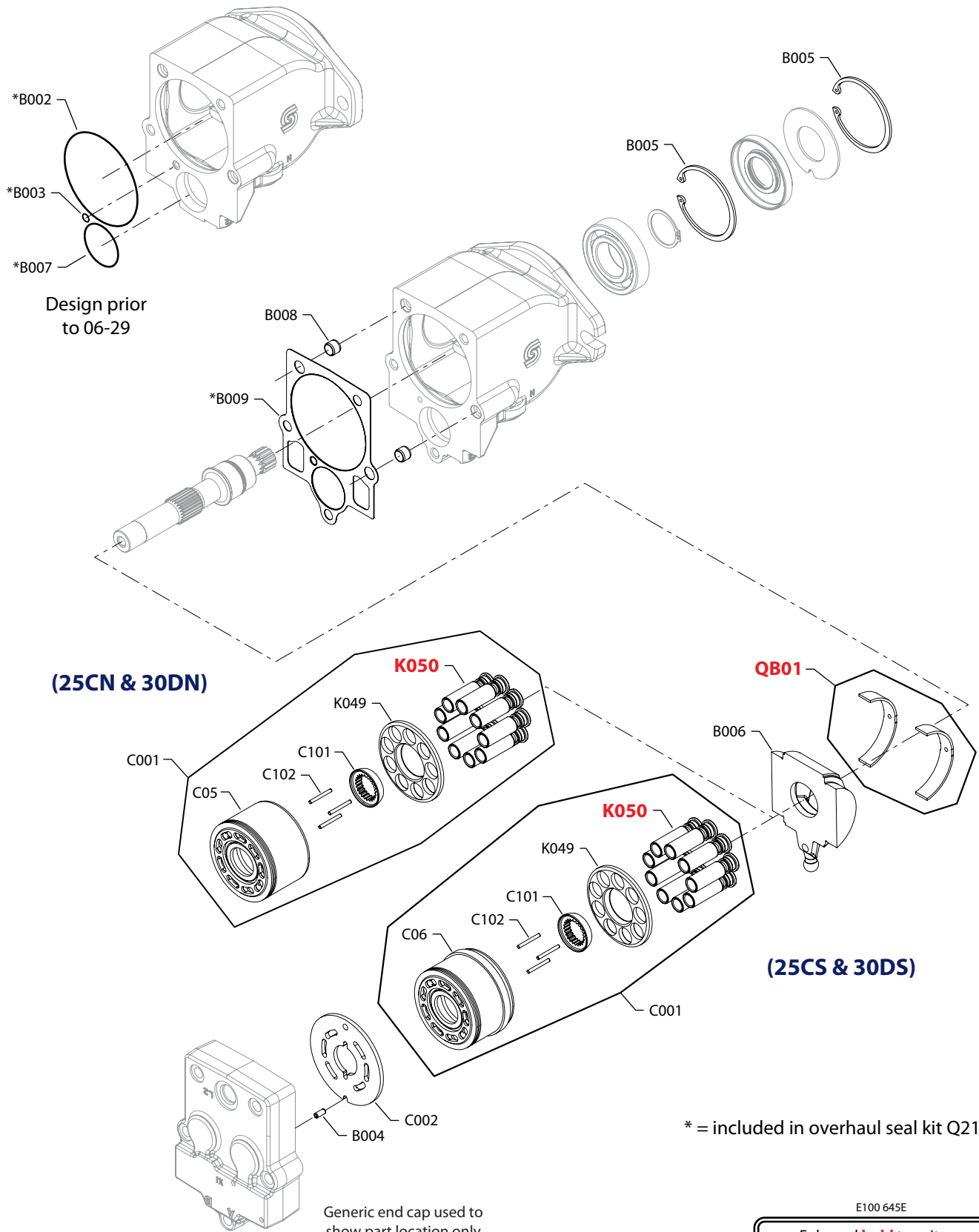
Order code, LV variable displacement motor



P100 653E



LV variable displacement motor



E100 645E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
Common parts

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
V	B002	99-19	06-28	327627 (9004104-1540)	O-ring (SB-2006-009)	1
	B003	00-02	06-28	329441 (9004104-0100)	O-ring (SB-1999-056 & SB-2006-009)	1
	B003	99-19	00-01	9004104-1080	O-ring	1
	B004	99-19		688622 (9004700-1907)	Pin	1
	B005	99-19		615237 (9006200-0281)	Retaining ring	2
	B006	99-19		4254039	Swashplate	1
	B007	00-02	06-28	4254585	O-ring (SB-1999-056 & SB-2006-009)	1
	B007	99-19	00-01	008821 (9004104-1290)	O-ring	1
	B008	06-29		4400090	Locator pin (SB-2006-009)	2
	B009	06-29		4254621	Gasket (SB-2006-009)	1
	QB01	03-42		11147376	Journal bearing kit	2

Displacement

25CN	C001	99-19		11065308	Cylinder block kit (SB-2009-037)	1
	C002	99-19		4254018	Valve plate	1
	C05	09-47		11089223	Cylinder block assembly (SB-2009-037)	1
	C101	09-47		4400077	Slipper retainer guide (SB-2009-037)	1
	C102	99-19		4700091	Slipper holddown pin	3
	K049	99-19		4254017	Slipper retainer	9
	K050	99-19		4254010	Piston assembly	1

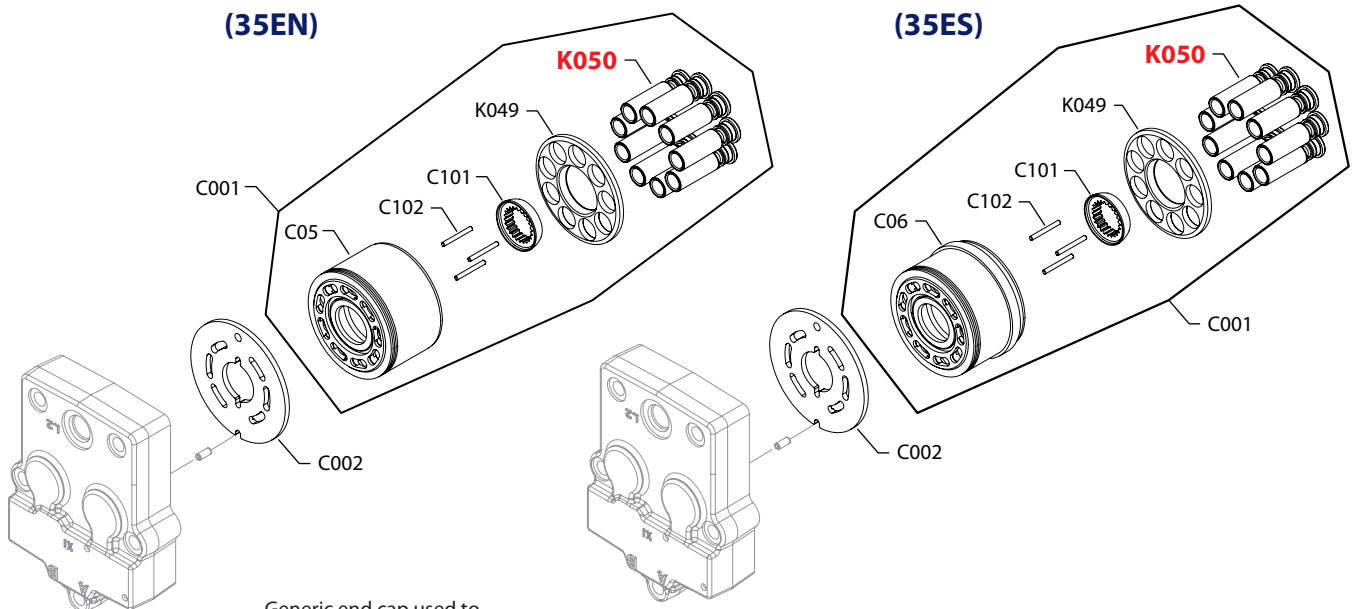
25CS	C001	00-37		11065309	Cylinder block kit with speed ring (SB-2009-037)	1
	C002	00-37		4254018	Valve plate	1
	C06	09-47		11147694	Cylinder block assembly w/speed ring (SB-2009-037)	1
	C101	09-47		4400077	Slipper retainer guide (SB-2009-037)	1
	C102	00-37		4700091	Slipper holddown pin	3
	K049	00-37		4254017	Slipper retainer	9
	K050	00-37		4254010	Piston assembly	1

30DN	C001	99-19		11065310	Cylinder block kit (SB-2009-037)	1
	C002	99-19		4254018	Valve plate	1
	C05	10-05		11089224	Cylinder block assembly (SB-2009-037)	1
	C101	10-05		4400077	Slipper retainer guide (SB-2009-037)	1
	C102	99-19		4700091	Slipper holddown pin	3
	K049	99-19		4254017	Slipper retainer	9
	K050	99-19		4254013	Piston assembly	1

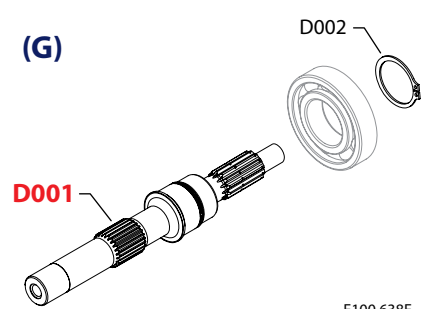
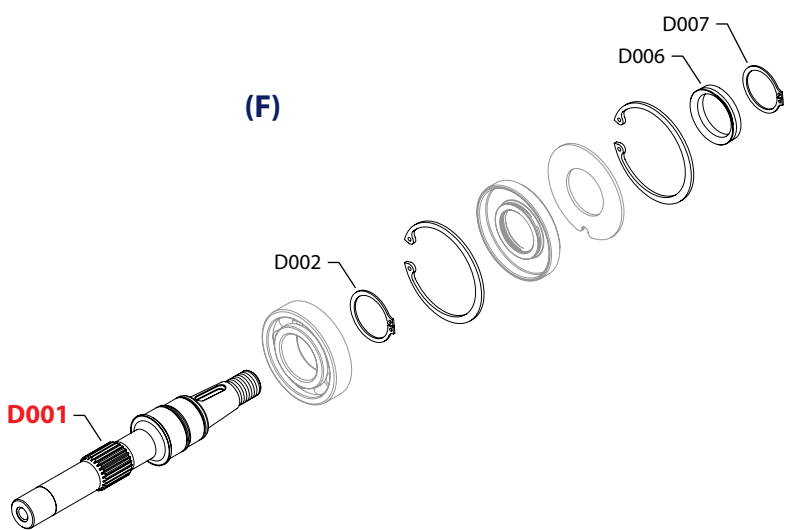
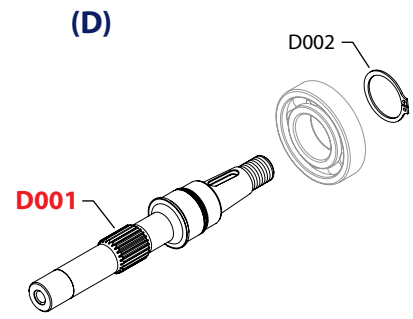
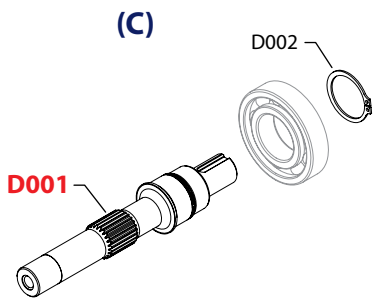
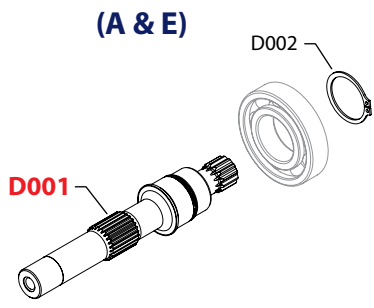
30DS	C001	00-37		11065311	Cylinder block kit (SB-2009-037)	1
	C002	00-37		4254018	Valve plate	1
	C06	10-05		11147695	Cylinder block assembly w/speed ring(SB-2009-037)	1
	C101	10-05		4400077	Slipper retainer guide (SB-2009-037)	1
	C102	00-37		4700091	Slipper holddown pin	3
	K049	00-37		4254017	Slipper retainer	9
	K050	00-37		4254013	Piston assembly	1



LV variable displacement motor



Generic end cap used to show part location only



E100 638E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
Displacement

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
35EN	C001	99-19		11065322	Cylinder block kit (SB-2009-037)	1
	C002	99-19		4254018	Valve plate	1
	C05	09-51		11147696	Cylinder block assembly (SB-2009-037)	1
	C101	09-51		4400077	Slipper retainer guide (SB-2009-037)	1
	C102	99-19		4700091	Slipper holddown pin	3
	K049	99-19		4254017	Slipper retainer	9
	K050	99-19		4254016	Piston assembly	1
	35ES	C001	00-37		11065323	Cylinder block kit with speed ring (SB-2009-037)
C002		00-37		4254018	Valve plate	1
C06		09-51		11147697	Cylinder block assembly w/speed ring (SB-2009-037)	1
C101		09-51		4400077	Slipper retainer guide	1
C102		00-37		4700091	Slipper holddown pin	3
K049		00-37		4254017	Slipper retainer	9
K050		00-37		4254016	Piston assembly	1

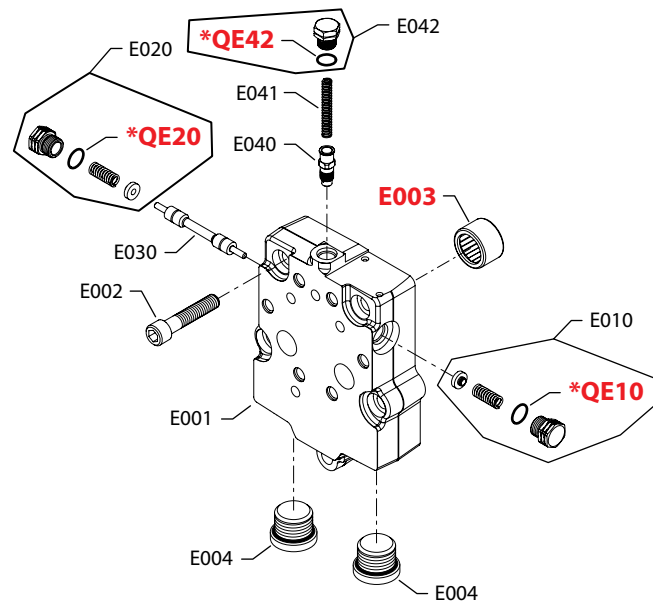
Shaft

A	D001	99-19		4254511	Shaft, 13 tooth spline	1
	D002	99-19		9006300-0137	Retaining ring	1
C	D001	00-44		4254509	Shaft, straight key	1
	D002	00-44		9006300-0137	Retaining ring	1
D	D001	00-44		4254568	Shaft, tapered (SB-2002-021)	1
	D002	00-44		9006300-0137	Retaining ring	1
E	D001	01-37		4254557	Shaft, 15 tooth spline	1
	D002	01-37		9006300-0137	Retaining ring	1
F	D001	10-27		11082961	Shaft, tapered	1
	D002	10-27		9006300-0137	Retaining ring	1
	D006	10-27		11083450	Shaft dust seal	1
	D007	10-27		5000365	Retaining ring	1
G	D001	11-30		11096097	Shaft, 15 tooth spline with bearing mount	1
	D002	11-30		9006300-0137	Retaining ring	1



LV variable displacement motor

(H1F, H2F & H3F)



* = included in overhaul seal kit Q210

E103 049E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
End cap

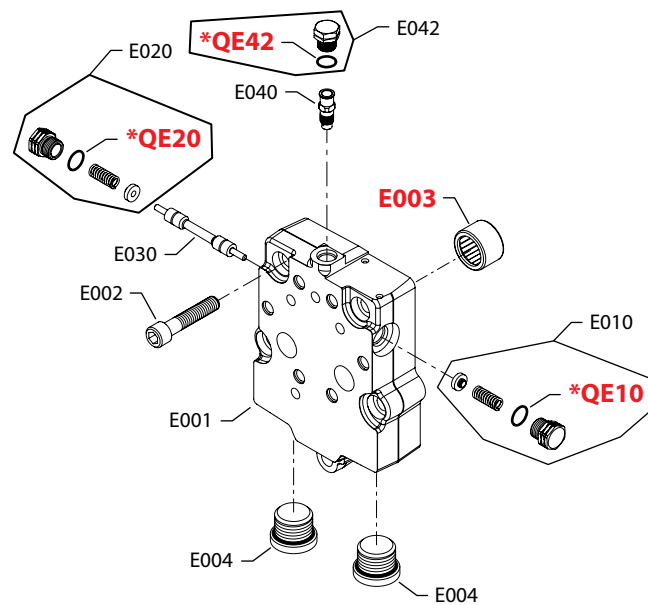
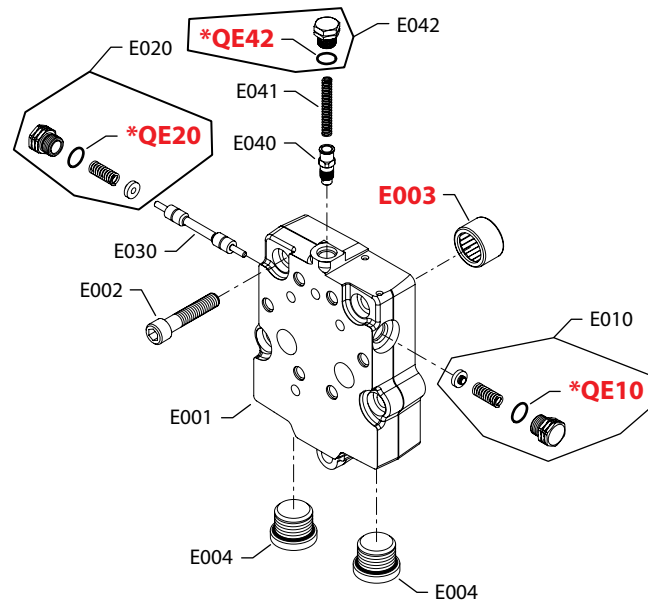
Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
H1F	E001	13-05		11097449	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800883	Relief valve poppet	1
	E041	13-05		768853	Spring	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

H2F	E001	13-05		11097449	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800884	Relief valve poppet	1
	E041	13-05		768853	Spring	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

H3F	E001	13-05		11097449	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800885	Relief valve poppet	1
	E041	13-05		768853	Spring	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1



LV variable displacement motor



* = included in overhaul seal kit Q210

E103 039E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
H4F	E001	13-05		11097449	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		11028490	Relief valve poppet	1
	E041	13-05		768853	Spring	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

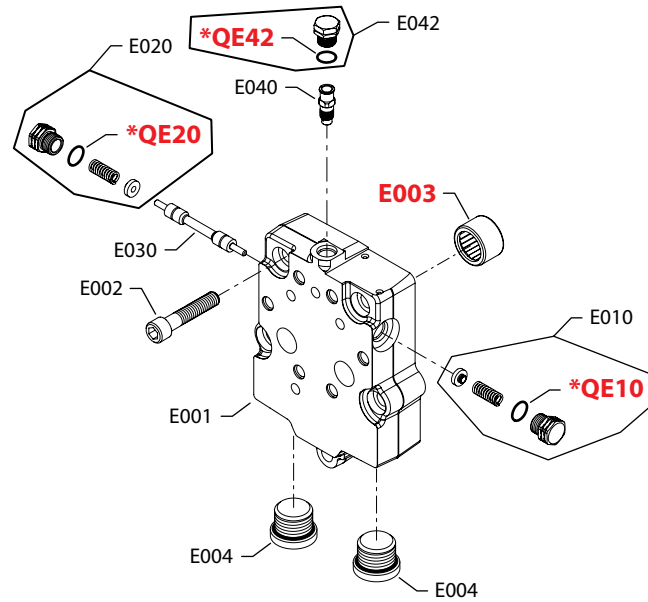
HAF	E001	13-05		11097449	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800883	Relief valve poppet	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

HBF	E001	13-05		11097449	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E004	13-05		664524 (9005110-9000)	Plug assembly	2
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800884	Relief valve poppet	1
	E042	13-05		4800280	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

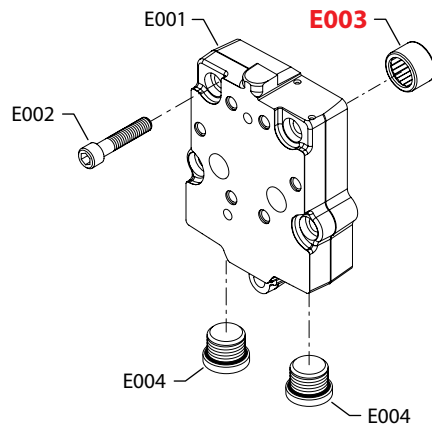


KV variable displacement motor

(HCF)



(HNF)



* = included in overhaul seal kit Q210

E103 040E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing

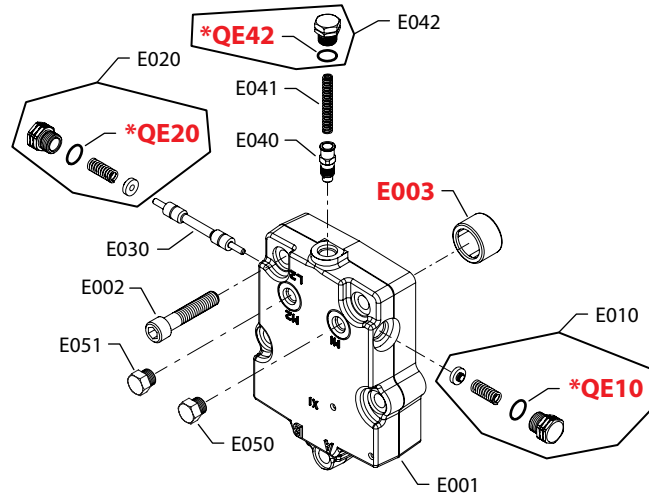

KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit	
HCF	E001	13-05		11097449	End cap, radial ports	1	
	E002	13-05		680686	Screw	5	
	E003	13-05		5000046	Needle bearing	1	
	E004	13-05		664524 (9005110-9000)	Plug assembly	2	
	E010	13-05		4800912	Loop flushing plug/spring assembly	1	
	E020	13-05		4800912	Loop flushing plug/spring assembly	1	
	E030	13-05		8800550	Spool	1	
	E040	13-05		4800885	Relief valve poppet	1	
	E042	13-05		4800280	Plug assembly	1	
	QE10	13-05		085043 (9004201-3700)	O-ring	1	
	QE20	13-05		085043 (9004201-3700)	O-ring	1	
	QE42	13-05		015818 (9004201-3100)	O-ring	1	
	HNF	E001	13-07		11086579	End cap, radial ports	1
		E002	13-07		680686	Screw	5
E003		13-07		5000046	Needle bearing	1	
E004		13-07		664524 (9005110-9000)	Plug assembly	2	



KV variable displacement motor

(R1F, R2F & R3F)



* = included in overhaul seal kit Q210

E103 041E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
R1F	E001	13-05		11120349	End cap, radial ports	1
	E002	13-05		680686	Screw	5
	E003	13-05		5000046	Needle bearing	1
	E010	13-05		4800912	Loop flushing plug/spring assembly	1
	E020	13-05		4800912	Loop flushing plug/spring assembly	1
	E030	13-05		8800550	Spool	1
	E040	13-05		4800883	Relief valve poppet	1
	E041	13-05		768853	Spring	1
	E042	13-05		4800280	Plug assembly	1
	E050	13-05		001511 (9005100-4400)	Plug assembly	1
	E051	13-05		001511 (9005100-4400)	Plug assembly	1
	QE10	13-05		085043 (9004201-3700)	O-ring	1
	QE20	13-05		085043 (9004201-3700)	O-ring	1
	QE42	13-05		015818 (9004201-3100)	O-ring	1

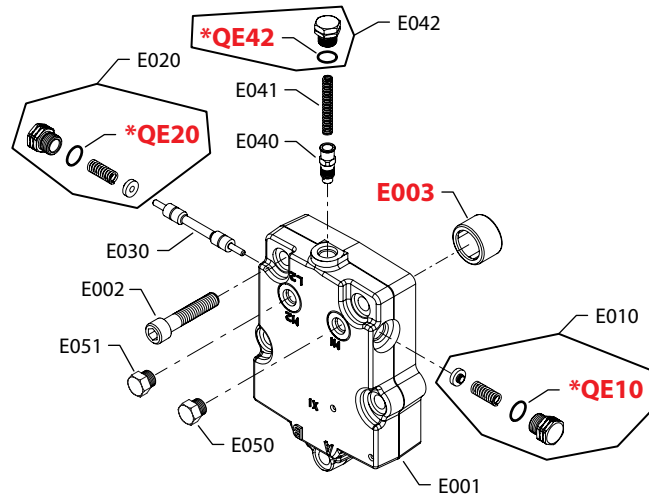
R2F	E001	10-04		11120349	End cap, radial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		4800884	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1

R3F	E001	10-04		11120349	End cap, radial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		4800885	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1

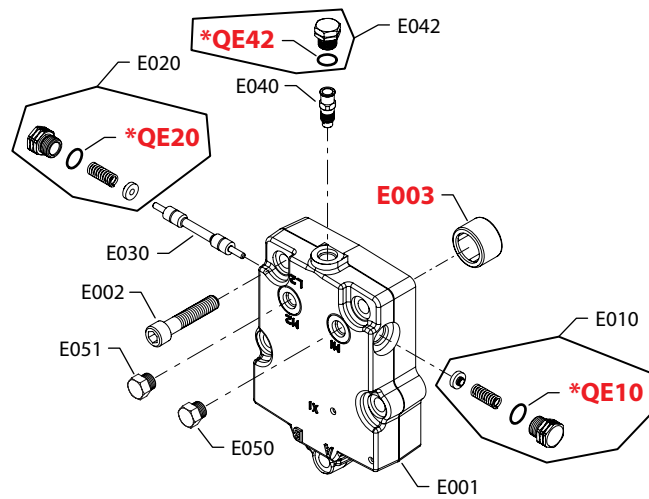


KV variable displacement motor

(R4F)



(RAF & RBF)



* = included in overhaul seal kit Q210

E103 042E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
R4F	E001	10-04		11120349	End cap, radial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		11028490	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1

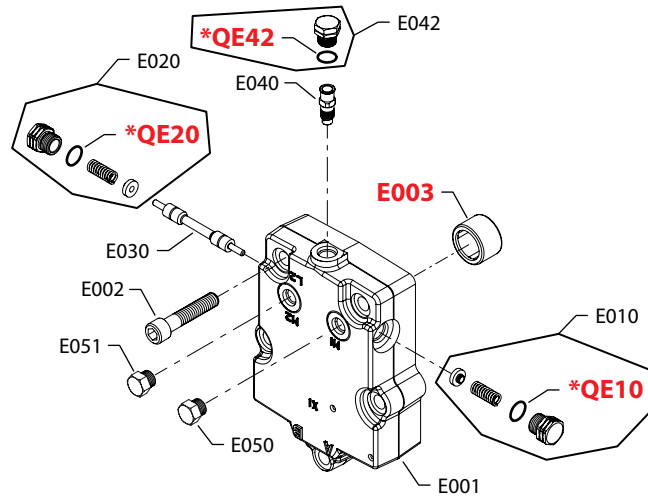
RAF	E001	12-20		11120349	End cap, radial ports	1
	E002	12-20		680686	Screw	5
	E003	12-20		5000046	Needle bearing	1
	E010	12-20		4800912	Loop flushing plug/spring assembly	1
	E020	12-20		4800912	Loop flushing plug/spring assembly	1
	E030	12-20		8800550	Spool	1
	E040	12-20		4800883	Relief valve poppet	1
	E042	12-20		4800280	Plug assembly	1
	E050	12-20		001511 (9005100-4400)	Plug assembly	1
	E051	12-20		001511 (9005100-4400)	Plug assembly	1
	QE10	12-20		085043 (9004201-3700)	O-ring	1
	QE20	12-20		085043 (9004201-3700)	O-ring	1
	QE42	12-20		015818 (9004201-3100)	O-ring	1

RBF	E001	12-22		11120349	End cap, radial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800884	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

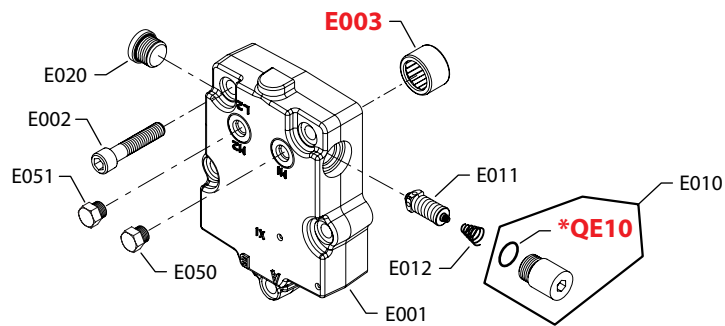


KV variable displacement motor

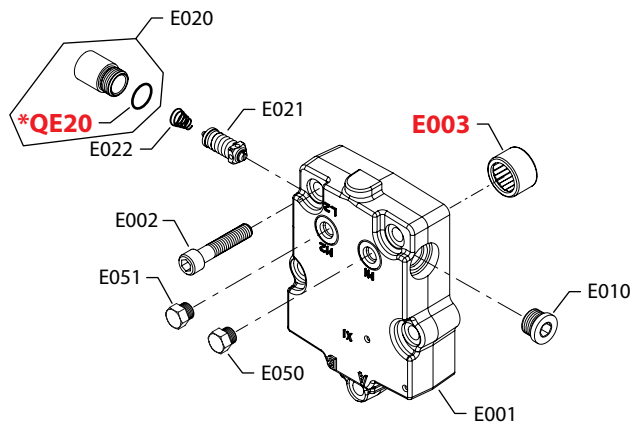
(RCF)



(RDF & RFF)



(REF)



* = included in overhaul seal kit Q210

E103 043E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


KV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
RCF	E001	12-22		11120349	End cap, radial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800885	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

RDF	E001	13-36		11120686	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		11126727	SCR plug assembly	1
	E011	13-36		3103375-0345	SCR valve assembly, 345 bar [5000 psi]	1
	E012	13-36		4800661	Spring	1
	E020	13-36		681296 (9005110-7500)	Plug assembly	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE10	13-36		001131 (9004201-5000)	O-ring	1

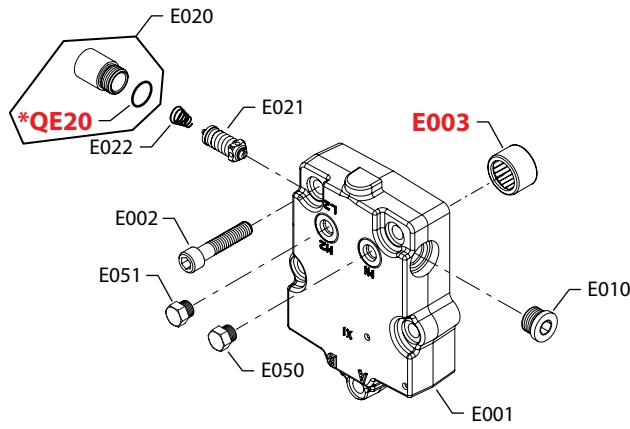
REF	E001	13-36		11120686	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		681296 (9005110-7500)	Plug assembly	1
	E020	13-36		11126727	SCR plug assembly	1
	E021	13-36		3103375-0345	SCR valve assembly, 345 bar [5000 psi]	1
	E022	13-36		4800661	Spring	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE20	13-36		001131 (9004201-5000)	O-ring	1

RFF	E001	13-36		11120686	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		11126727	SCR plug assembly	1
	E011	13-36		3103375-0280	SCR valve assembly, 280 bar [4060 psi]	1
	E012	13-36		4800661	Spring	1
	E020	13-36		681296 (9005110-7500)	Plug assembly	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE10	13-36		001131 (9004201-5000)	O-ring	1

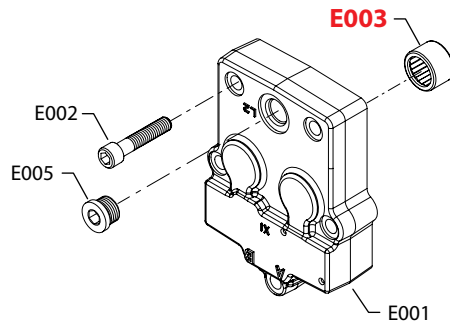


LV variable displacement motor

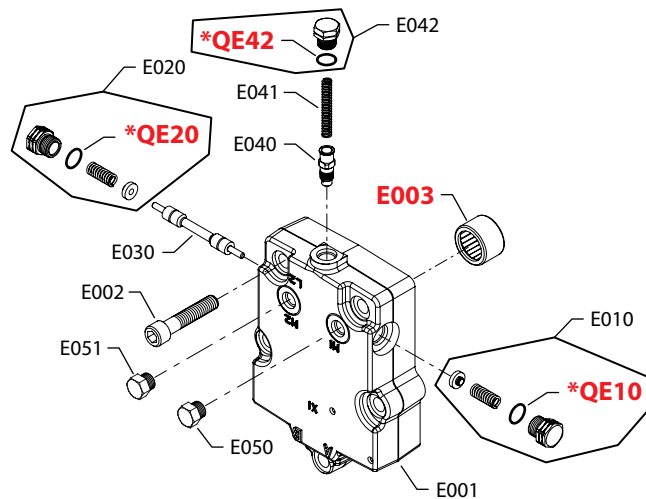
(RGF)



(RNF)



(Y1F)



* = included in overhaul seal kit Q210

E103 044E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing

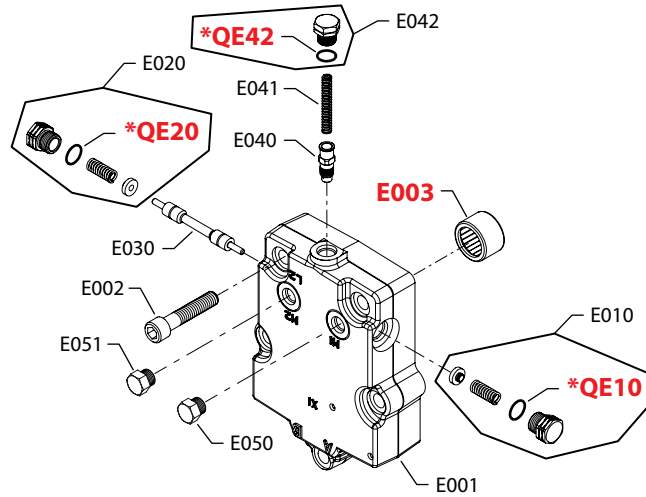

LV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
RGF	E001	13-36		11120686	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E010	13-36		681296 (9005110-7500)	Plug assembly	1
	E020	13-36		11126727	SCR plug assembly	1
	E021	13-36		3103375-0280	SCR valve assembly, 280 bar [4060 psi]	1
	E022	13-36		4800661	Spring	1
	E050	13-36		001511 (9005100-4400)	Plug assembly	1
	E051	13-36		001511 (9005100-4400)	Plug assembly	1
	QE20	13-36		001131 (9004201-5000)	O-ring	1
RNF	E001	13-36		4254611	End cap, radial ports	1
	E002	13-36		680686	Screw	5
	E003	13-36		5000046	Needle bearing	1
	E005	13-36		681296 (9005110-7500)	Plug assembly	1
Y1F	E001	10-04		11120348	End cap, axial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E006	10-04		515965 (9005110-5600)	Plug assembly	1
	E007	10-04		664524 (9005110-9000)	Plug assembly	2
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		4800883	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1



LV variable displacement motor

(Y2F, Y3F & Y4F)



* = included in overhaul seal kit Q210

E103 045E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
Y2F	E001	10-04		11120348	End cap, axial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E006	10-04		515965 (9005110-5600)	Plug assembly	1
	E007	10-04		664524 (9005110-9000)	Plug assembly	2
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		4800884	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1

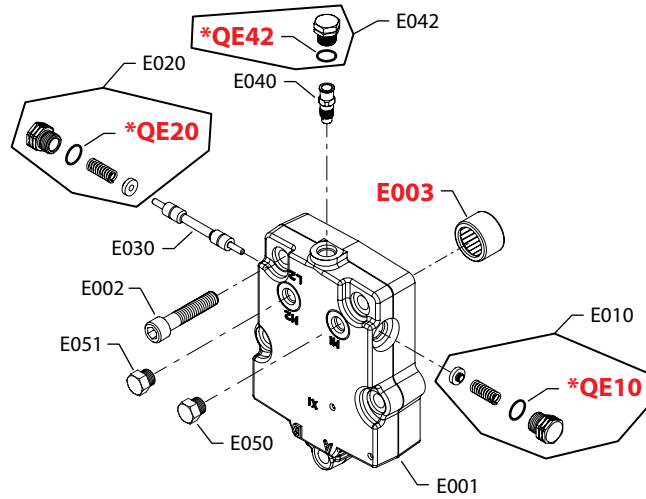
Y3F	E001	10-04		11120348	End cap, axial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E006	10-04		515965 (9005110-5600)	Plug assembly	1
	E007	10-04		664524 (9005110-9000)	Plug assembly	2
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		4800885	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1

Y4F	E001	10-04		11120348	End cap, axial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E006	10-04		515965 (9005110-5600)	Plug assembly	1
	E007	10-04		664524 (9005110-9000)	Plug assembly	2
	E010	10-04		4800912	Loop flushing plug/spring assembly	1
	E020	10-04		4800912	Loop flushing plug/spring assembly	1
	E030	10-04		8800550	Spool	1
	E040	10-04		11028490	Relief valve poppet	1
	E041	10-04		768853	Spring	1
	E042	10-04		4800280	Plug assembly	1
	E050	10-04		001511 (9005100-4400)	Plug assembly	1
	E051	10-04		001511 (9005100-4400)	Plug assembly	1
	QE10	10-04		085043 (9004201-3700)	O-ring	1
	QE20	10-04		085043 (9004201-3700)	O-ring	1
	QE42	10-04		015818 (9004201-3100)	O-ring	1



LV variable displacement motor

(YAF, YBF & YCF)



* = included in overhaul seal kit Q210

E103 046E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
YAF	E001	12-22		11120348	End cap, axial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E006	12-22		515965 (9005110-5600)	Plug assembly	1
	E007	12-22		664524 (9005110-9000)	Plug assembly	2
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800883	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

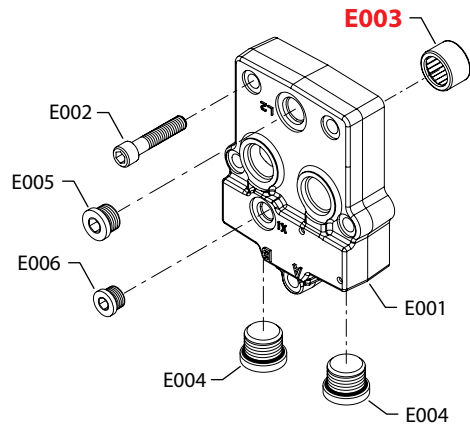
YBF	E001	12-22		11120348	End cap, axial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E006	12-22		515965 (9005110-5600)	Plug assembly	1
	E007	12-22		664524 (9005110-9000)	Plug assembly	2
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800884	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

YCF	E001	12-22		11120348	End cap, axial ports	1
	E002	12-22		680686	Screw	5
	E003	12-22		5000046	Needle bearing	1
	E006	12-22		515965 (9005110-5600)	Plug assembly	1
	E007	12-22		664524 (9005110-9000)	Plug assembly	2
	E010	12-22		4800912	Loop flushing plug/spring assembly	1
	E020	12-22		4800912	Loop flushing plug/spring assembly	1
	E030	12-22		8800550	Spool	1
	E040	12-22		4800885	Relief valve poppet	1
	E042	12-22		4800280	Plug assembly	1
	E050	12-22		001511 (9005100-4400)	Plug assembly	1
	E051	12-22		001511 (9005100-4400)	Plug assembly	1
	QE10	12-22		085043 (9004201-3700)	O-ring	1
	QE20	12-22		085043 (9004201-3700)	O-ring	1
	QE42	12-22		015818 (9004201-3100)	O-ring	1

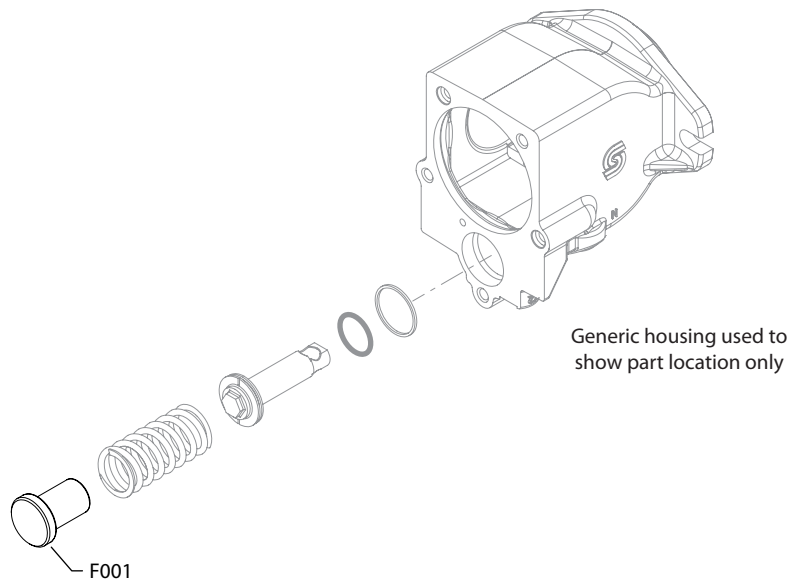


LV variable displacement motor

(YNF)



(F01 - FX1)



E103 047E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
End cap

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
YNF	E001	10-04		4254609	End cap, axial ports	1
	E002	10-04		680686	Screw	5
	E003	10-04		5000046	Needle bearing	1
	E005	10-04		681296 (9005110-7500)	Plug assembly	1
	E006	10-04		515965 (9005110-5600)	Plug assembly	1
	E007	10-04		664524 (9005110-9000)	Plug assembly	2

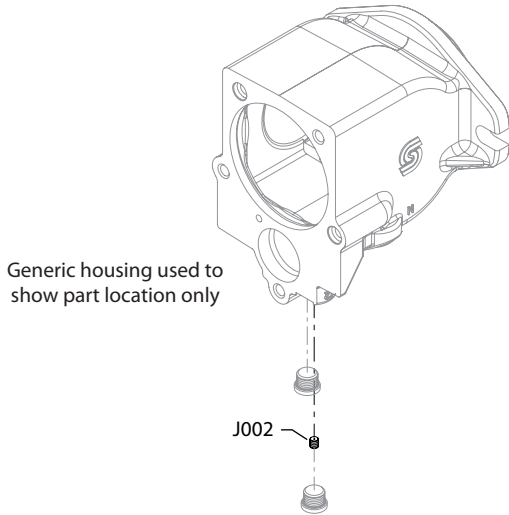
Minimum angle

F00	F001	99-19		4254505	Spring seat, 0 degree	1
F01	F001	99-19		4254087	Spring seat, 1 degree	1
F06	F001	99-19		4254086	Spring seat, 6 degree	1
F07	F001	99-19		4254085	Spring seat, 7 degree	1
F08	F001	99-19		4254083	Spring seat, 8 degree	1
F09	F001	99-19		4254081	Spring seat, 9 degree	1
F10	F001	99-19		4254079	Spring seat, 10 degree	1
F11	F001	99-19		4254078	Spring seat, 11 degree	1
F12	F001	99-19		4254077	Spring seat, 12 degree	1
F13	F001	99-19		4254076	Spring seat, 13 degree	1
F45	F001	99-19		11057140	Spring seat, 4,5 degree	1
F55	F001	99-19		4254503	Spring seat, 5,5 degree	1
F65	F001	99-19		4254548	Spring seat, 6,5 degree	1
F75	F001	99-19		4254084	Spring seat, 7,5 degree	1
F85	F001	99-19		4254082	Spring seat, 8,5 degree	1
F95	F001	99-19		4254080	Spring seat, 9,5 degree	1
FX1	F001	99-19		4254088	Spring seat, -1 degree	1

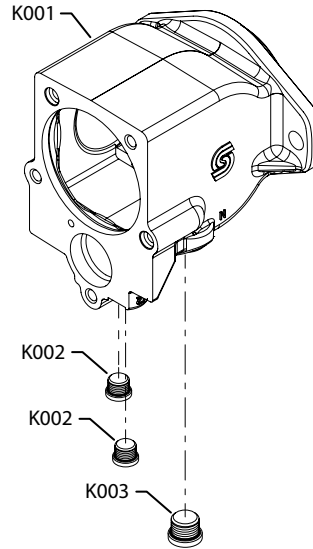


LV variable displacement motor

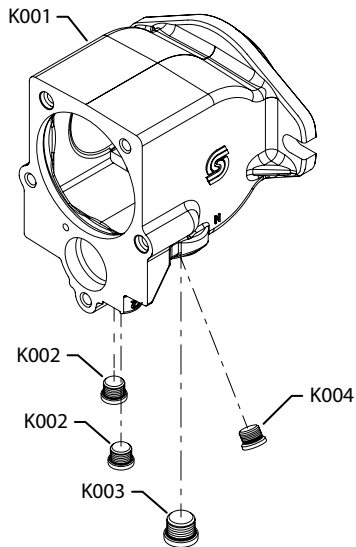
(1, 2, 3 & X)



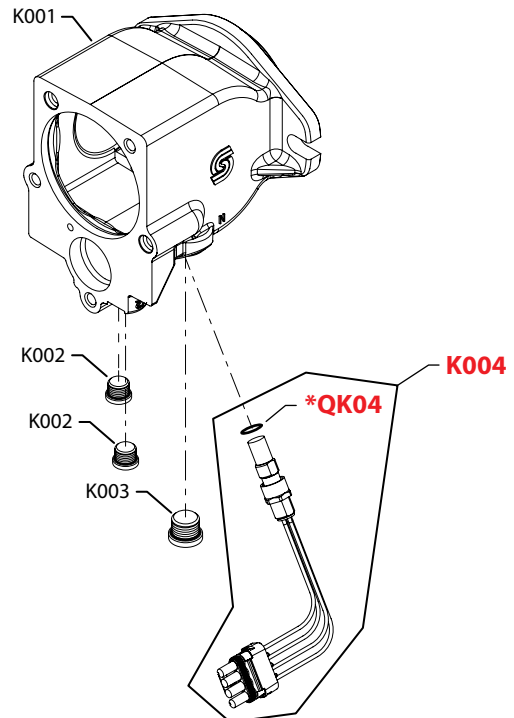
(AF)



(BF)



(CF, DF, EF & FF)



* = included in overhaul seal kit Q210

E100 640E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
Drain orifice

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
1	J002	99-19		763680	Orifice, 0.6 mm	1
2	J002	99-19		739136	Orifice, 0.7 mm	1
3	J002	99-19		739144	Orifice, 0.8 mm	1
N				None		
X	J002	99-19		092114	Set screw	1

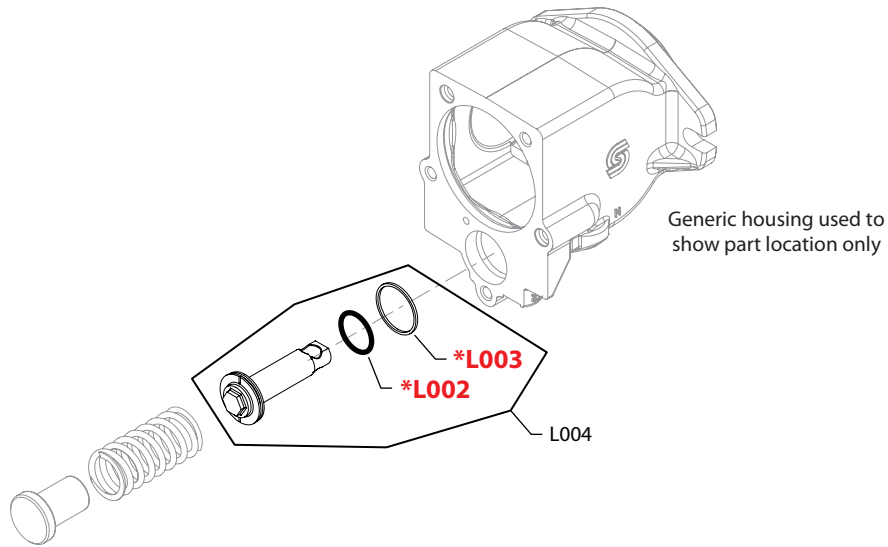
Housing

AF	K001	99-19		4254607	Housing	1
	K002	99-19		515965 (9005110-5600)	Plug assembly	2
	K003	99-19		681296 (9005110-7500)	Plug assembly	1
BF	K001	99-19		11058841	Housing (SB-2009-002)	1
	K002	99-19		515965 (9005110-5600)	Plug assembly	2
	K003	99-19		681296 (9005110-7500)	Plugassembly	1
	K004	99-19		515965 (9005110-5600)	Plug assembly	1
CF	K001	99-19		11058841	Housing (SB-2009-002)	1
	K002	99-19		515965 (9005110-5600)	Plug assembly	2
	K003	99-19		681296 (9005110-7500)	Plugassembly	1
	K004	99-19		KPPG13408	Speed sensor	1
	QK04	99-19		085043 (9004201-3700)	O-ring	1
DF	K001	03-42		11058841	Housing (SB-2009-002)	1
	K002	03-42		515965 (9005110-5600)	Plug assembly	2
	K003	03-42		681296 (9005110-7500)	Plugassembly	1
	K004	03-42		KPPG13704	Speed sensor	1
	QK04	03-42		085043 (9004201-3700)	O-ring	1
EF	K001	13-05		11058841	Housing (SB-2009-002)	1
	K002	13-05		515965 (9005110-5600)	Plug assembly	2
	K003	13-05		681296 (9005110-7500)	Plugassembly	1
	K004	13-05		KPPG16008	Speed sensor	1
	QK04	13-05		085043 (9004201-3700)	O-ring	1
FF	K001	09-40		11058841	Housing (SB-2009-002)	1
	K002	09-40		515965 (9005110-5600)	Plug assembly	2
	K003	09-40		681296 (9005110-7500)	Plugassembly	1
	K004	09-40		KPPG16708B	Speed sensor	1
	QK04	09-40		085043 (9004201-3700)	O-ring	1



LV variable displacement motor

(F12 - F18)



* = included in overhaul seal kit Q210

E100 641E

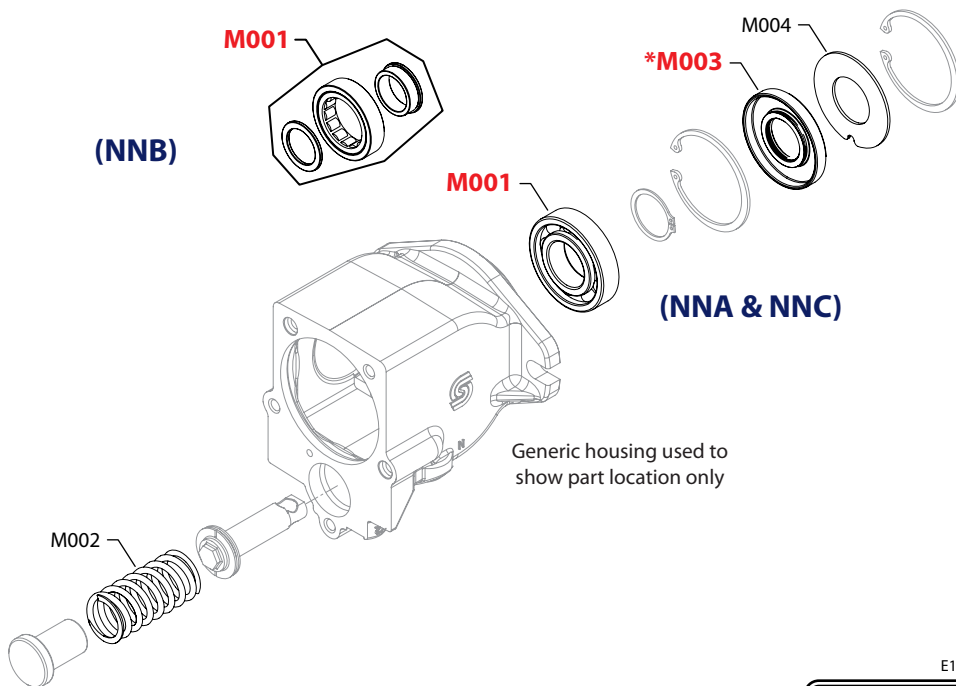
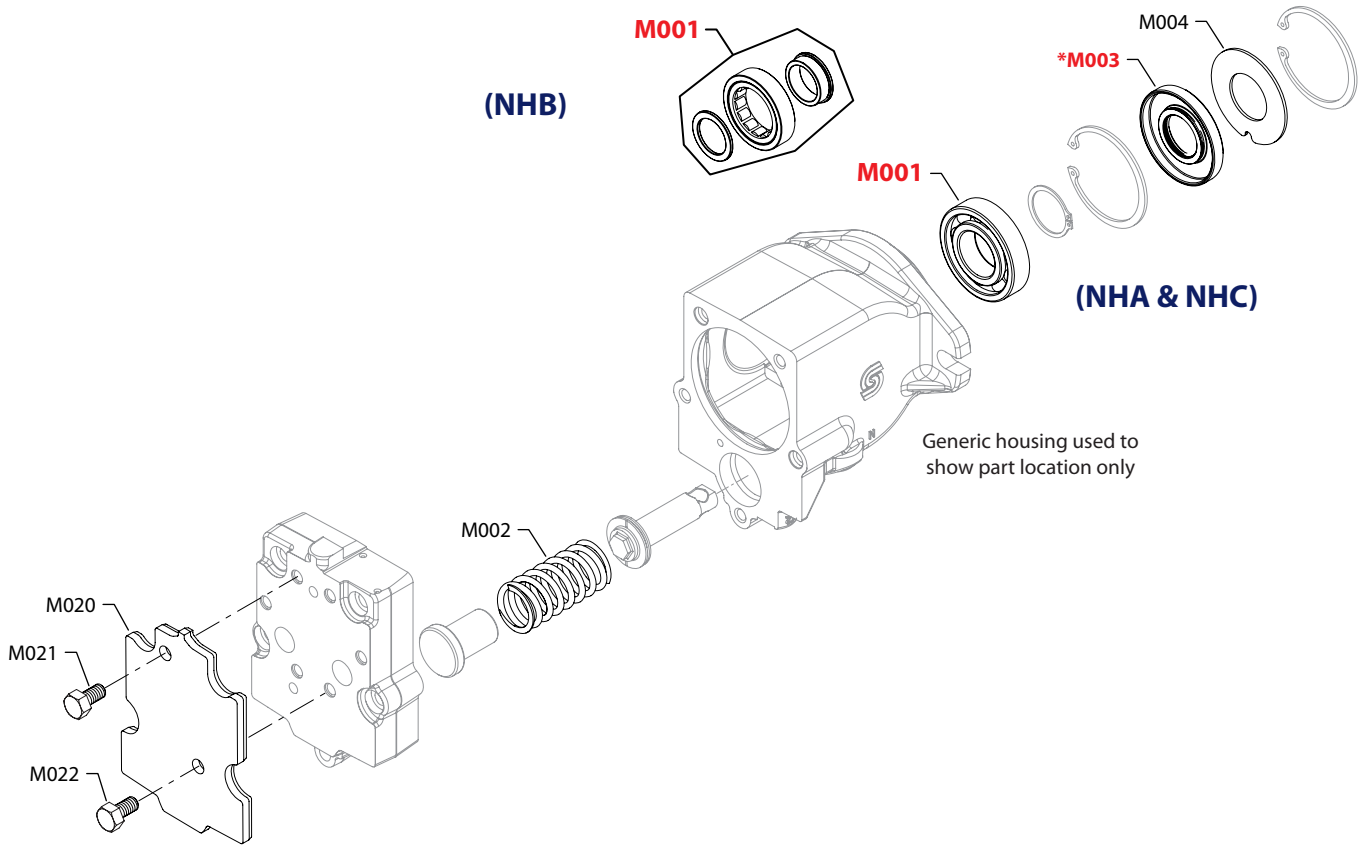
Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
Maximum angle

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F12	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		11106004	Servo piston assembly, 12 degree	1
F13	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		4254579	Servo piston assembly, 13 degree	1
F14	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		4254578	Servo piston assembly, 14 degree	1
F15	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		4254577	Servo piston assembly, 15 degree	1
F16	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		4254576	Servo piston assembly, 16 degree	1
F17	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		4254575	Servo piston assembly, 17 degree	1
F18	L002	99-19		318345 (9004104-0240)	O-ring	1
	L003	99-19		4254025	Seal ring	1
	L004	99-19		4254574	Servo piston assembly, 18 degree	1



LV variable displacement motor



E103 048E

Enlarged **bold** type item numbers are recommended parts to be stocked for servicing


LV variable displacement motor
Special hardware

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
NHA	M001	13-36		11060400	Ball bearing	1
	M002	13-36		4254073	Spring	1
	M003	13-36		11103135	Lip seal (SB-2013-006)	1
	M004	13-36		11083729	Seal support washer (SB-2011-004)	1
	M020	13-36		11087524	Cover	1
	M021	13-36		370247	Screw	1
	M022	13-36		370247	Screw	1
	NHB	M001	13-36		357616	Roller bearing
M002		13-36		4254073	Spring	1
M003		13-36		11103135	Lip seal (SB-2013-006)	1
M004		13-36		11083729	Seal support washer (SB-2011-004)	1
M020		13-36		11087524	Cover	1
M021		13-36		370247	Screw	1
M022		13-36		370247	Screw	1
NHC		M001	12-47		5000731	Ball bearing
	M002	12-47		4254073	Spring	1
	M003	12-47		11103135	Lip seal (SB-2013-006)	1
	M004	12-47		11083729	Seal support washer (SB-2011-004)	1
	M020	12-47		11087524	Cover	1
	M021	12-47		370247	Screw	1
	M022	12-47		370247	Screw	1
	NNA	M001	12-47		11060400	Ball bearing
M002		12-47		4254073	Spring	1
M003		12-47		11103135	Lip seal (SB-2013-006)	1
M004		12-47		11083729	Seal support washer (SB-2011-004)	1
NNB	M001	12-47		357616	Roller bearing	1
	M002	12-47		4254073	Spring	1
	M003	12-47		11103135	Lip seal (SB-2013-006)	1
	M004	12-47		11083729	Seal support washer (SB-2011-004)	1
NNN	M001	99-19		5000731	Ball bearing	1
	M002	99-19		4254073	Spring	1
	M003	99-19		11103135	Lip seal (SB-2013-006)	1
	M004	99-19		11083729	Seal support washer (2011-004)	1


Overhaul seal kit
Overhaul seal kit, KV and LV

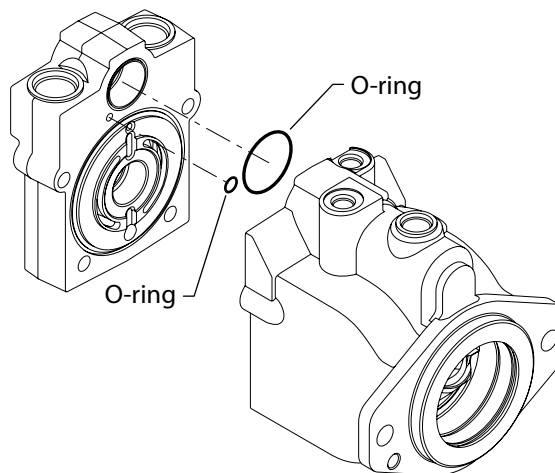
Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
	Q210	03-42		11147375	Overhaul seal kit, KV/LV	1
	B002	03-42		327627 (9004104-1540)	O-ring	1
	B003	03-42		329441 (9004104-0100)	O-ring	1
	B003	03-42		9004104-1080	O-ring	1
	B007	03-42		4254585	O-ring	1
	B007	03-42		008821 (9004104-1290)	O-ring	1
	B009	03-42		4254621	Gasket	1
	QE10	03-42		001131 (9004201-5000)	O-ring	1
	QE20	03-42		001131 (9004201-5000)	O-ring	1
	QE42	03-42		015818 (9004201-3100)	O-ring	1
	QK04	03-42		085043 (9004201-3700)	O-ring	2
	K002A	03-42		085043 (9004201-3700)	O-ring	2
	K003A	03-42		001131 (9004201-5000)	O-ring	1
	L002	03-42		318345 (9004104-0240)	O-ring	1
	L003	03-42		4254025	Seal ring	1
	M003	03-42		11103135	Lip seal	1


Service bulletin: SB-1999-056
Products affected LV motors

Subject Housing, end cap, and O-ring change

Description As a product improvement, Sauer-Danfoss has redesigned the housing and end cap for the LV motor. This change was made to make the LV motor more robust and resistant to developing an external leak. Due to this design modification, the O-rings were also required to change.

This is a non-interchangeable change. The old housing and end caps have become obsolete. The old O-rings will remain available for servicing old units. The new O-rings have been added to the overhaul seal kit.


Models affected All LV motors - 4254xxx

Serial numbers This change became effective at serial number K-00-01-xxxxx.

Part numbers affected

Item description	Old part number	New part number
LV housing	4254043	4254097
LV end cap (radial)	4254044	4254098
LV end cap (axial)	4254045	4254099
O-ring	5000534	329441
O-ring	008821	5000568

Parts disposition ■ Non-interchangeable

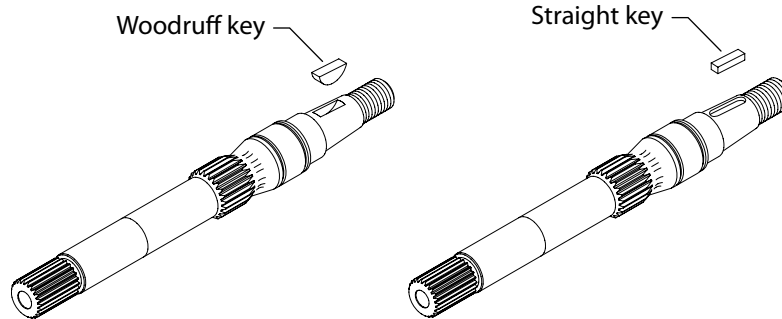


Service bulletin: SB-2002-021

Products affected Series 40: M25, M35, M44, M46 and LV variable motors

Subject Change from woodruff key to straight key on tapered shaft

Description Sauer-Danfoss uses a straight key rather than a woodruff key in tapered shafts on all Series 40 pumps and motors. Tapered shafts requiring a woodruff key are obsolete. The woodruff key, however, remains available for service requirements. Customers requiring a replacement shaft need the straight key.



Models affected M25, M35, M44, M46 and LV models using tapered shafts.

Serial numbers This change becomes effective during the 2002 build year.

Part numbers affected

Old part number	New part number	Description
9003310-2514	-	Key-woodruff, .248 x .875
-	5000664	Key-square, .250 x .750
4250012	4250164	Shaft-pump
4254500	4254568	Shaft-tapered, LV
4350390	4350805	Shaft-motor, fixed w/taper
4350432	4350791	Shaft-tandem, tapered
4460309	4461308	Shaft-pump, tapered/9T aux.
4461290	4461302	Shaft-pump, tapered/13T aux.
4460577	4461309	Shaft-motor, tapered
4460804	4461306	Shaft-MV, 13T/1" dia. 1.5" tapered
4460772	4461307	Shaft-tandem, tapered

Parts disposition

- Interchangeable (if shaft and key are both replaced)
- Use parts in stock

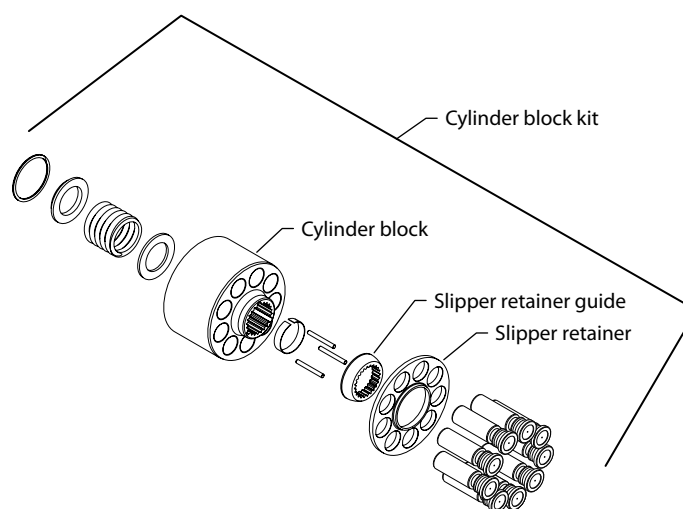

Service bulletin: SB-2005-004

Products affected KV variable motors

Subject Cylinder block change

Description As a product improvement, Sauer-Danfoss has changed the KV motor cylinder block kits. The new cylinder block kits are directly interchangeable with the old kits. The old cylinder block kits are obsolete and no longer available for service.

The parts that are changing within the cylinder block kits are the block, slipper retainer and slipper retainer guide. The new individual parts are not interchangeable with the old parts. The old slipper retainers and slipper retainer guides will continue to be available for service. The old blocks are obsolete and are no longer available for service. Should an old cylinder block be required for service it must be replaced with a complete new cylinder block kit.



Models affected All KV motors

Serial numbers This change became effective at serial number K-05-06-xxxxx

Part numbers affected

Description	Old part number	New part number
Cylinder block kit	4400042	4400120
Cylinder block kit	4400043	4400109
Cylinder block	4400031	4400120
Cylinder block	4400032	4400109
Slipper ret. guide	3103487	4400077
Slipper retainer	3103488	4400078

Parts disposition ■ Interchangeable (if shaft and key are both replaced)

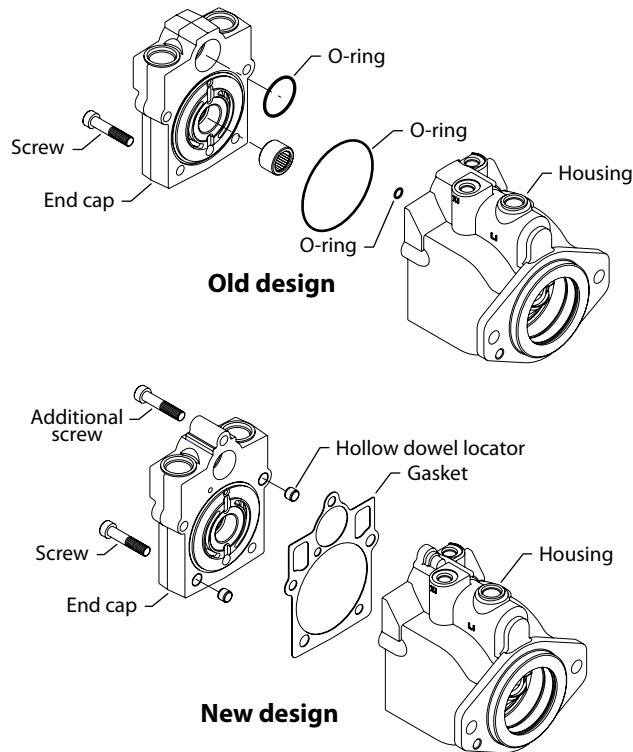


Service bulletin: SB-2006-009

Products affected KV and LV variable motors

Subject Incorporation of end cap gasket

Description As an improvement in product reliability, Sauer-Danfoss has changed the KV and LV variable motors to accept a gasket between the end cap and motor housing. Incorporation of the gasket involves the elimination of 3 O-rings, the addition of a dowel locator in LV motors, the addition of a fifth end cap screw, and new end caps and housings to accommodate the fifth screw and gasket. The new parts are non-interchangeable with the old parts. The old parts will remain available for a period of time for service needs.



Models affected All KV and LV motors

Serial numbers This change became effective at K-06-28-xxxxx.


Service bulletin: SB-2006-009
Part numbers affected

KV motors

Description	Old part number	New part number
Housing w/o speed port	4254581	4254607
Housing w/speed port	4400141	4254608
End cap, axial w/o loop flushing	4400051	4400146
End cap, axial w/loop flushing	4400123	4400147
End cap, radial w/o loop flushing	4400050	4400148
End cap, radial w/loop flushing	4400122	4400149
Gasket	N/A	4254621
O-ring	4254585	N/A
O-ring	9004104-0100	N/A
O-ring	9004104-1540	N/A

LV motors

Description	Old part number	New part number
Housing w/o speed port	4254097	4254607
Housing w/speed port	4254524	4254608
End cap, axial w/o loop flushing	4254556	4254609
End cap, axial w/loop flushing	4254596	4254610
End cap, radial w/o loop flushing	4254098	4254611
End cap, radial w/loop flushing	4254593	4254612
Hollow dowel locator	N/A	4400090
Gasket	N/A	4254621
O-ring	4254585	N/A
O-ring	9004104-0100	N/A
O-ring	327627	N/A

Parts disposition

- Interchangeable (if shaft and key are both replaced)
- Use parts in stock



Service bulletin: SB-2009-002

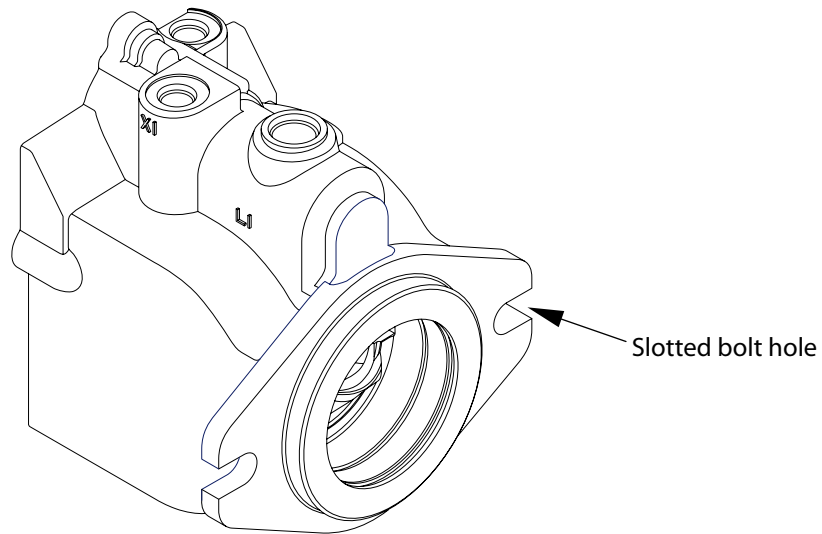
Products affected K and L variable motors

Subject Housing

Description Sauer-Danfoss has changed the housing mounting flange for LV and KV motors to a slotted hole instead of a round mounting bolt hole.

The new housings with slotted holes will accommodate a wider bolt hole pattern used in some applications.

All LV and KV motor housings that have the speed sensor port option are affected by this change. The new and old housings are interchangeable except when used in the wider mounting hole pattern application. The old housing part number is obsolete.



Models affected All KV and LV motors with speed sensor port option.

Serial numbers This change became effective at serial number A-09-15-xxxxx

Part numbers affected

Description	Old part number	New part number
Housing	4254608	11058841

Parts disposition

- Non-interchangeable
- Use parts in stock



Service bulletin: SB-2009-037

Products affected LV and LC variable motors

Subject Cylinder block - trapped keel hold down pin

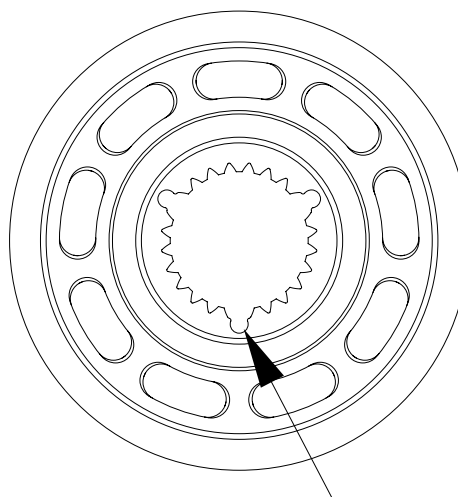
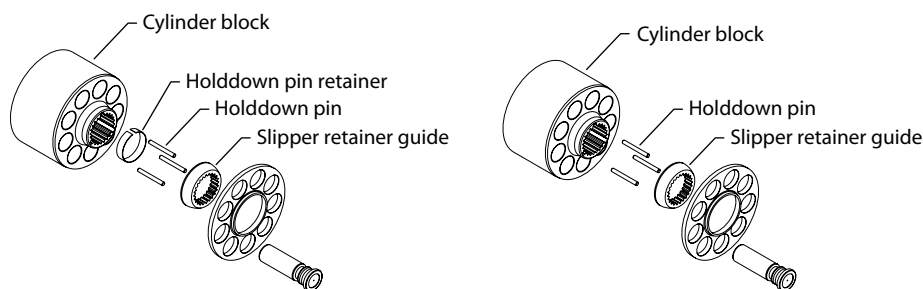
Description To facilitate assembly Sauer-Danfoss has changed the cylinder block design for LV (SAE mount) and LC (cartridge mount) variable motors. The new design feature retains the keel hold down pins to prevent misalignment of the pins during assembly. The old hold down pin retainer ring has been eliminated from the assembly.

The new and old cylinder block kit assemblies are interchangeable. The new cylinder blocks and slipper retainer guides are not interchangeable with the old cylinder blocks and slipper retainer guides.

The new cylinder block hub and slipper retainer guide have an increased diameter where these two parts contact in the assembly. If an old cylinder block is being replaced in service with the new style cylinder block the slipper retainer guide must also be replaced with the new style.

All other components within the new and old cylinder block kits are interchangeable.

The old cylinder block kits and cylinder blocks are obsolete and no longer available for service.




Service bulletin: SB-2009-037

Models affected All LV and LC variable motors

Serial numbers This change became effective at serial number: A09-47-XXXXX (18 November 2009) 25cc
 A10-05-XXXXX (01 February 2010) 30cc
 A09-51-XXXXX (15 December 2009) 35cc

Part numbers affected

Description	Old part number	New part number
25cc cylinder block kit	4254021	11065308
25cc cylinder block kit w/speed ring	4254516	11065309
25cc cylinder block	4254046	11047348
25cc slipper retainer guide	4280005	4400077
30cc cylinder block kit	4254022	11065310
30cc cylinder block kit w/speed ring	4254517	11065311
30cc cylinder block	4254515	11047350
30cc slipper retainer guide	4280005	4400077
35cc cylinder block kit	4254023	11065322
35cc cylinder block kit w/speed ring	4254518	11065323
35cc cylinder block	4254512	11047349
35cc slipper retainer guide	4280005	4400077
Hold down pin retaining ring	9006250-0144	N/A

Parts disposition

- Non-interchangeable
- Use parts in stock

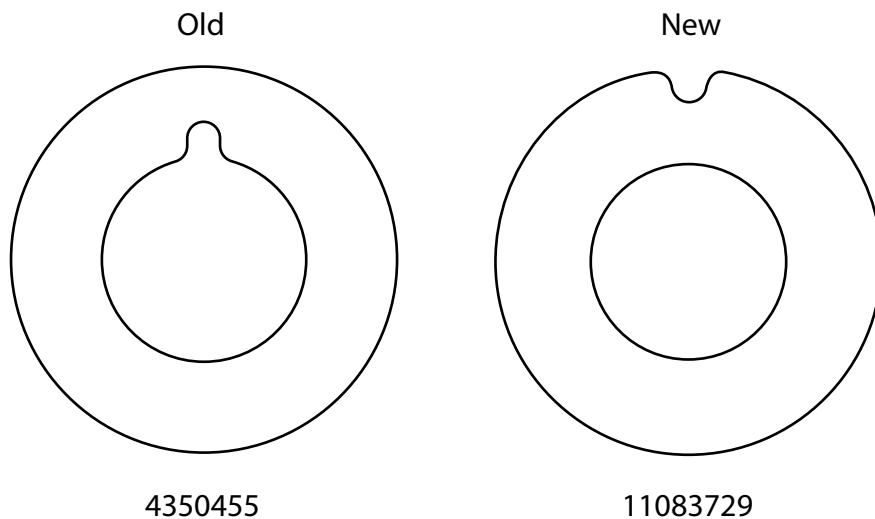


Service bulletin: SB-2011-004

Products affected K and L variable motors

Subject Seal support washer

Description Sauer-Danfoss is changing the Seal Washer Support on all L & K variable motors. This change will facilitate future improvements. The new design is interchangeable with the old design but the old design is not interchangeable with the new design. The old Seal Support Washer is obsolete and no longer available as a service part.



Models affected All KV and LV variable motors

Serial numbers This change became effective at serial number A-11-22-xxxxx (3 June 2011)

Part numbers affected

Description	Old part number	New part number
Seal support washer	4350455	11083729

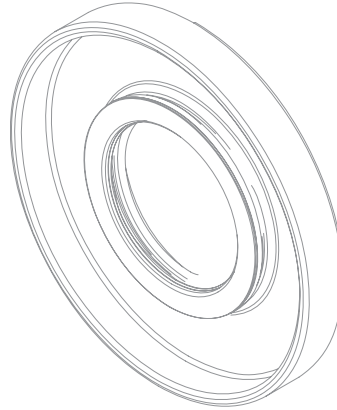
Parts disposition ■ Interchangeable


Service bulletin: SB-2013-006

Products affected K and L variable motors

Subject Shaft seal

Description As part of continuing product improvement efforts, Sauer-Danfoss has changed the material for the shaft seal on all K and L variable motors from nitrile to FKM.



Models affected All K and L variable motors (KV, KC, LV & LC)

Serial numbers This change became effective at serial number A-13-02-xxxxx (9 Jan 2013)

Part numbers affected

Description	Old part number	New part number
Lip seal	9008000-0121	11103135

Parts disposition

- Interchangeable
- Use parts in stock



Notes



Products we offer:

- Bent Axis Motors
- Closed Circuit Axial Piston Pumps and Motors
- Displays
- Electrohydraulic Power Steering
- Electrohydraulics
- Hydraulic Power Steering
- Integrated Systems
- Joysticks and Control Handles
- Microcontrollers and Software
- Open Circuit Axial Piston Pumps
- Orbital Motors
- PLUS+1® GUIDE
- Proportional Valves
- Sensors
- Steering
- Transit Mixer Drives

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electronic components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market. Building on our extensive applications expertise, we work closely with our customers to ensure exceptional performance for a broad range of off-highway vehicles.

We help OEMs around the world speed up system development, reduce costs and bring vehicles to market faster.

Danfoss – Your Strongest Partner in Mobile Hydraulics.

Go to www.powersolutions.danfoss.com for further product information.

Wherever off-highway vehicles are at work, so is Danfoss.

We offer expert worldwide support for our customers, ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide comprehensive global service for all of our components.

Please contact the Danfoss Power Solution representative nearest you.

Comatrol

www.comatrol.com

Schwarzmueller-Inverter

www.schwarzmueller-inverter.com

Turolla

www.turollaocg.com

Valmova

www.valmova.com

Hydro-Gear

www.hydro-gear.com

Daikin-Sauer-Danfoss

www.daikin-sauer-danfoss.com

Local address:

Danfoss Power Solutions US Company
2800 East 13th Street
Ames, IA 50010, USA
Phone: +1 515 239 6000

Danfoss Power Solutions GmbH & Co. OHG
Krokamp 35
D-24539 Neumünster, Germany
Phone: +49 4321 871 0

Danfoss Power Solutions ApS
Nordborgvej 81
DK-6430 Nordborg, Denmark
Phone: +45 7488 4444

Danfoss Power Solutions
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
Phone: +86 21 3418 5200

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.