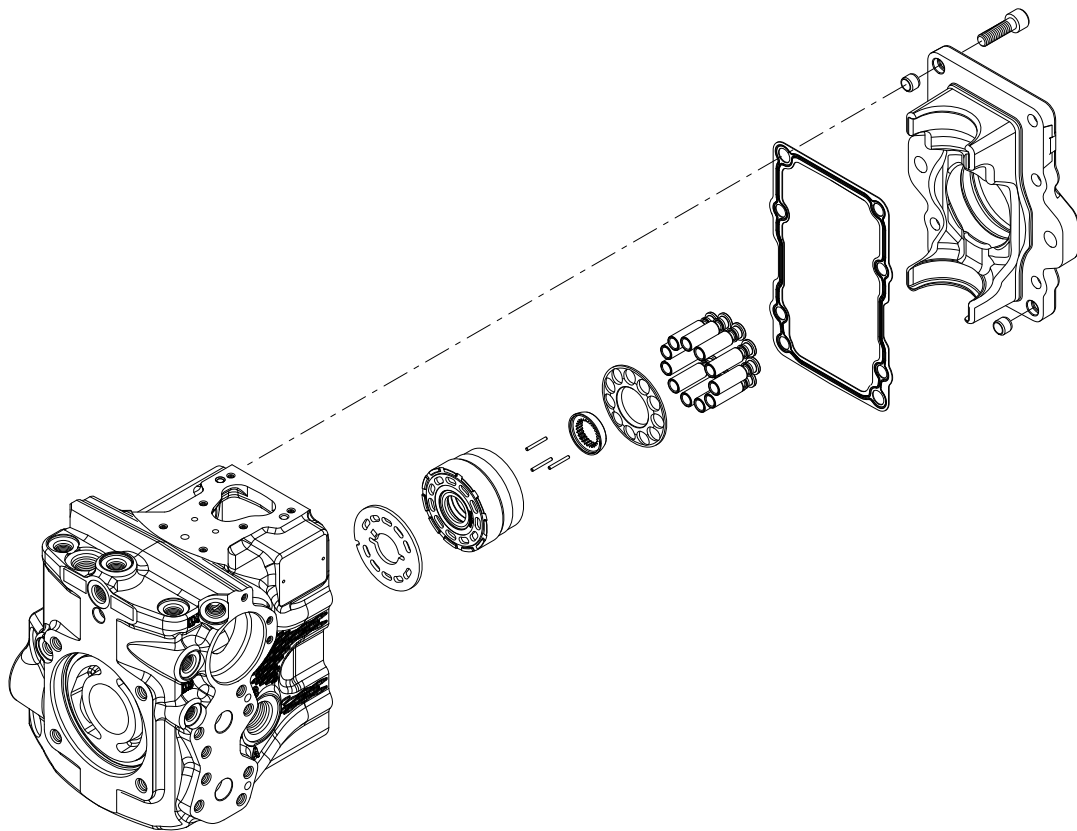


Parts Manual

Axial Piston Closed Circuit Pump

MP1 38 and 45cc



Revision history

Table of revisions

Date	Changed	Rev
August 2025	Updated parts numbers	1007
February 2025	Update revision for DAMHub	1006
January 2025	Updated housing part numbers and SB-2019-007, updated QD75 part number	1005
August 2024	Updated MDC information	1004
July 2024	Aligned document numbers with DAM Hub	1003
June 2022	Modified part numbers	1002
February 2022	Replaced plug assembly part numbers for automotive controls; added new controls	1001
September 2020	Added orifice option D6	0906
May 2020	Updated CCO part numbers	0905
March 2020	Updated loop flushing and porting type options, changed document number from AX00000306	0904
January 2020	Replaced control gasket part numbers	0802
August 2019	Added various new part options	0801
January 2019	Corrected part numbers	0701
November 2018	Added shaft options F5 and G5	0602
May 2018	Updated MDC control handle and corrected various part numbers	0601
April 2018	Corrected journal bearing part numbers	0502
February 2018	Added new control and special hardware options	0501
October 2017	Updated to Engineering Tomorrow and removed certain control options	0401

Contents

General information

Service parts identification.....	5
Nameplate.....	5
Date code.....	6
About service bulletins.....	6
Procedure to identify a part.....	6
Regional part numbers.....	6
Adobe Acrobat 2-page viewing.....	7
Order code.....	8
Notes.....	9

Controls

Control MA4, MA5.....	10
Control MG8, MH1.....	12
Control SA2, SA3.....	14
Control SA4, SA5.....	16
Control SE7, SE8.....	18
Control SG8, SH1.....	20
Control SH2.....	22
Control MM1, MM2.....	24
Control SM1, SM2.....	26
Control MA9, MB1.....	28
Control SA9, SB1.....	30
Control MN1, MN2, SN1, SN2.....	32
Control MM3, MM4, SM3, SM4.....	34
Control MM5, MM6, SM5, SM6.....	36
Control MNN, SNN.....	38
MP1 Control MT1, MT2.....	40
MP1 Control ST1, ST2.....	42
Control AJ1.....	44
Control AU1.....	46
Control AJ3.....	48
Control AU3.....	50

Displacement limitation

Displacement limitation B.....	52
Displacement limitation C.....	54
Displacement limitation D.....	56
Displacement limitation N.....	58

Orifice

Orifice C1-E8.....	60
--------------------	----

Porting type

Porting type A1, B1.....	62
Porting type C1, D1.....	64
Porting type A4, C4.....	66
Porting type A5, C5.....	68
MP1 38/45 porting type B3, D3.....	72
Porting type B4, D4.....	74
Porting type B5, D5.....	76
Porting type A3, C3.....	78

Mounting flange

Mounting flange F.....	80
------------------------	----

Shaft

Shaft A6-F2.....	82
Shaft F1-G7.....	84

Auxiliary mounting

Aux mounting A16-ANN.....	86
---------------------------	----

Contents

Aux mounting B16-BNN.....	88
Aux mounting C16-CNN.....	90
Aux mounting D16-DNN.....	92
Aux mounting E16-ENN.....	94
Aux mounting F16-FNN.....	96

Loop flushing

MP1 38/45 loop flushing B, C.....	98
-----------------------------------	----

System protection

System protection port A.....	100
System protections port B.....	102

Filtration and charge pressure relief

Filtration and charge pressure relief.....	104
--	-----

Special hardware

Special hardware LAE-LBF.....	106
Special hardware RAE-RBF.....	108

Settings

Settings M00A-M095.....	110
-------------------------	-----

Overhaul seal kit

MP1 38/45cc seal kit.....	112
---------------------------	-----

Service bulletin

SB-2018-024.....	113
SB-2018-040.....	113
SB-2019-007.....	114
SB-2021-014.....	116
SB-2024-007.....	117

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 .

The parts listed include all parts which may be used when performing either "Minor Repairs", "Major Repairs" or "Conversions" on the MP1 38 and 45cc.

Nameplate

Each unit will have a nameplate affixed to the housing. The nameplate of the MP1 38 and 45cc 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/material number

The Danfoss model number (also known as material 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).

The first number (2 digits) indicates the year of manufacture. 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 G30

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
80	G30	89-17		8000243	End cap gasket	1
	G30		89-16	8000151	End cap gasket (SB-1995-006)	1

All units using this order code with a date code prior to 89-17 must use part number "8000151." All units with a date code of 89-17 and newer must use part number "8000243."

About 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

The modular design of this product results 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. A part number that has another number following it in parentheses is done to make this a world wide manual.

Regional part numbers

Some part numbers are region specific and should be ordered accordingly.

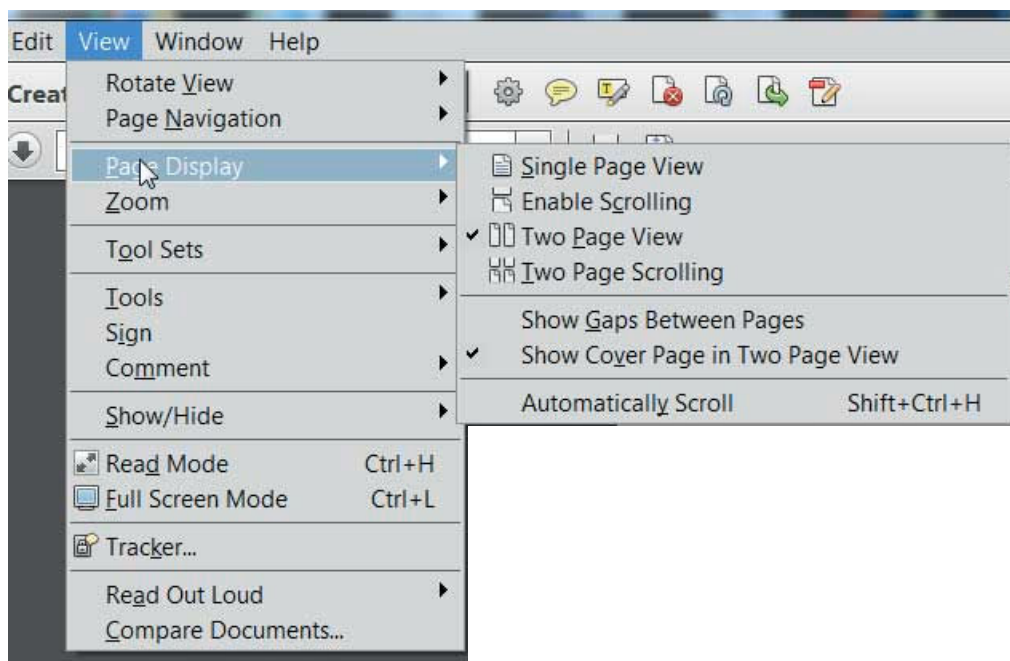
As an example, the part number (example: 314583 (9008000-0118)) will be used. The first number is sold in Germany. The number in parentheses is sold in the United States. Customers would order 9008000-0118 if ordering the part in the United States.

General information

Adobe Acrobat 2-page viewing

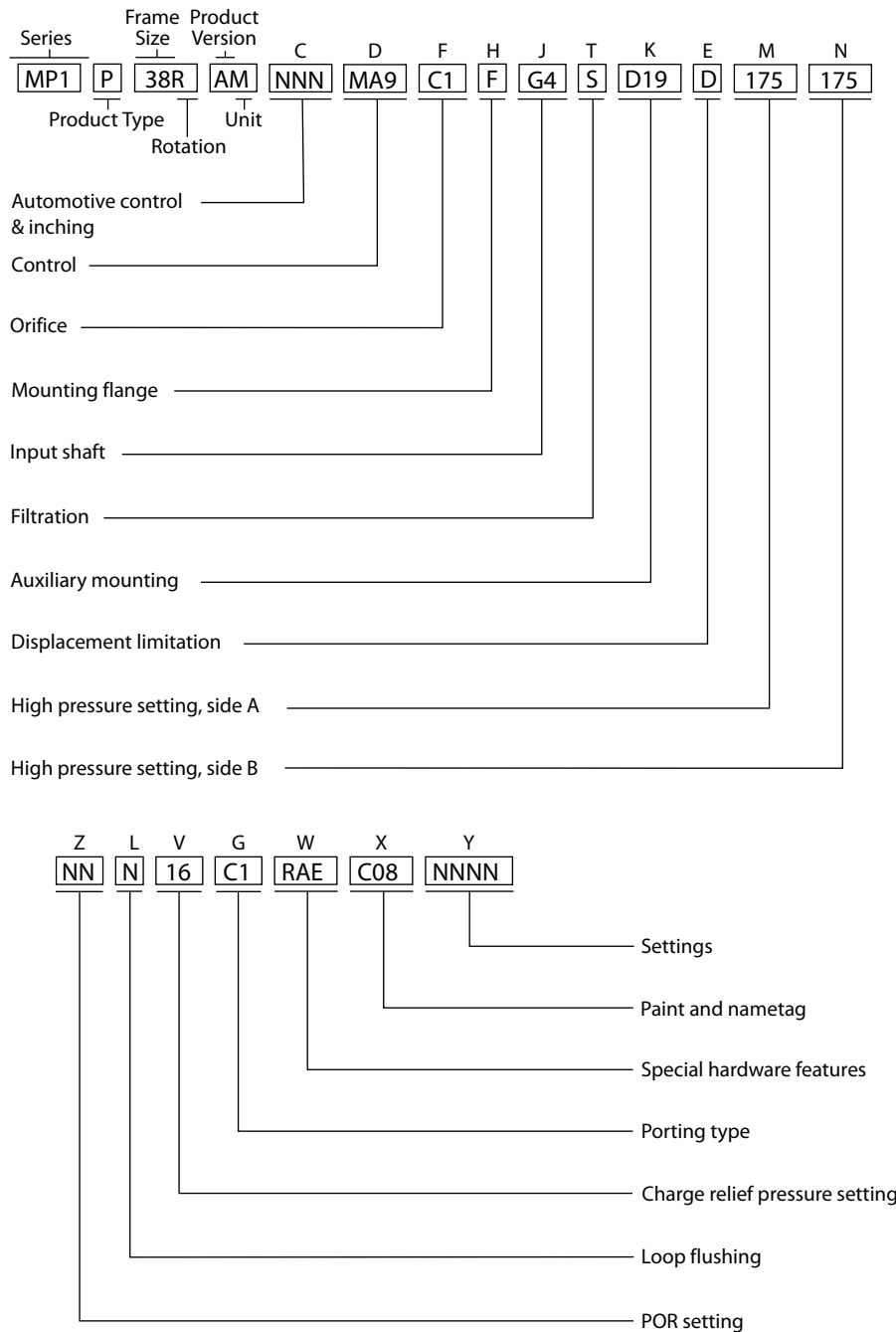
While viewing manual in Adobe Acrobat, the following settings need to be applied to ensure proper page display.

1. Select "View" → "Page Display" → "Two Page View"
2. Select "View" → "Page Display" → "Show Cover Page in Two Page View"



General information

Order code



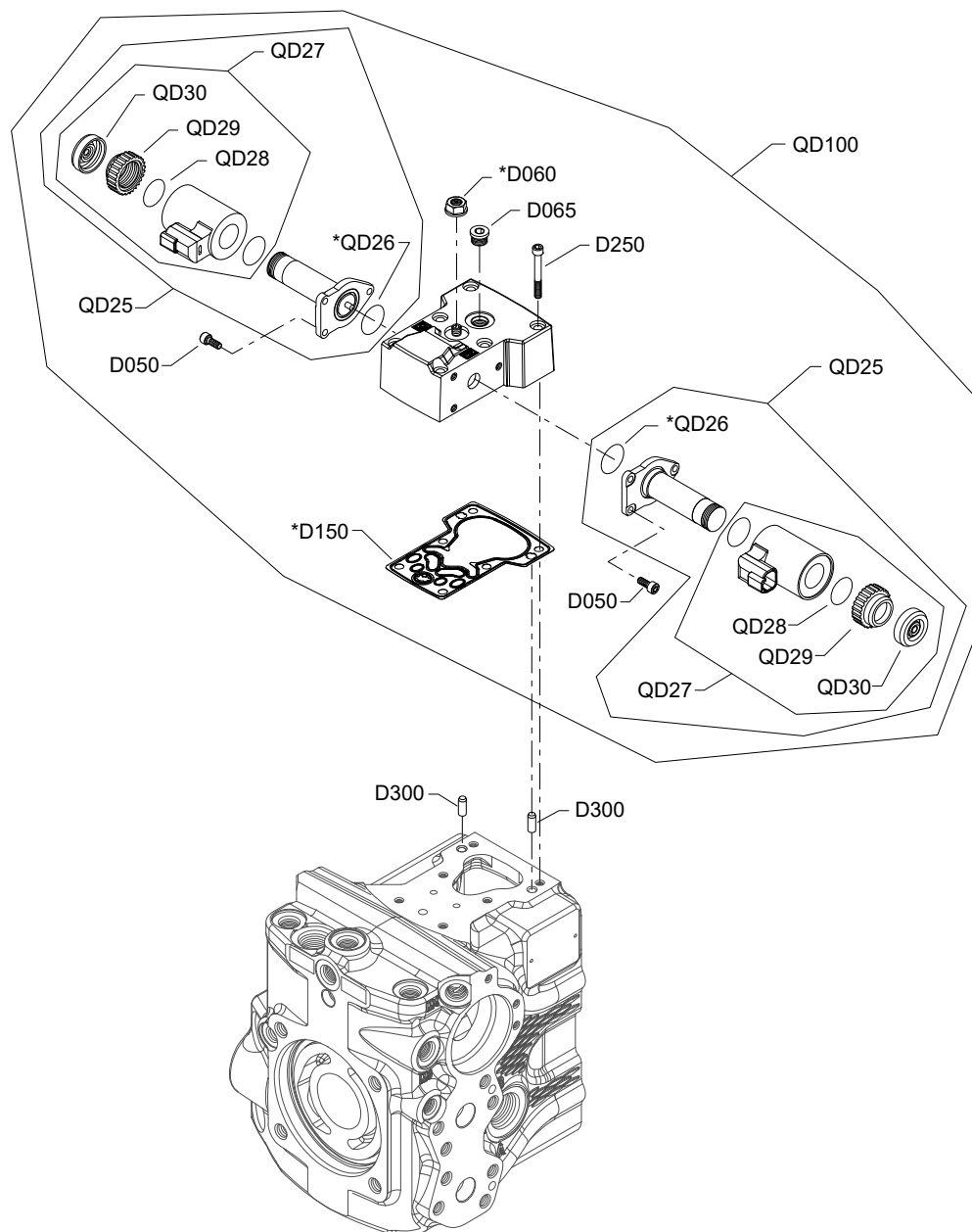
General information

Notes

Controls

MP1 control MA4, MA5

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		5000572	Plug assembly, M12	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD30	16-32		11027883	Cap	2

Order code: MA4

QD25	16-32		140750	Proportional solenoid, 12v	2
QD27	16-32		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-32		11004749	Coil nut	2
QD100	16-32		11170081	EDC kit, 12V, high gain spool, manual override, metric	1

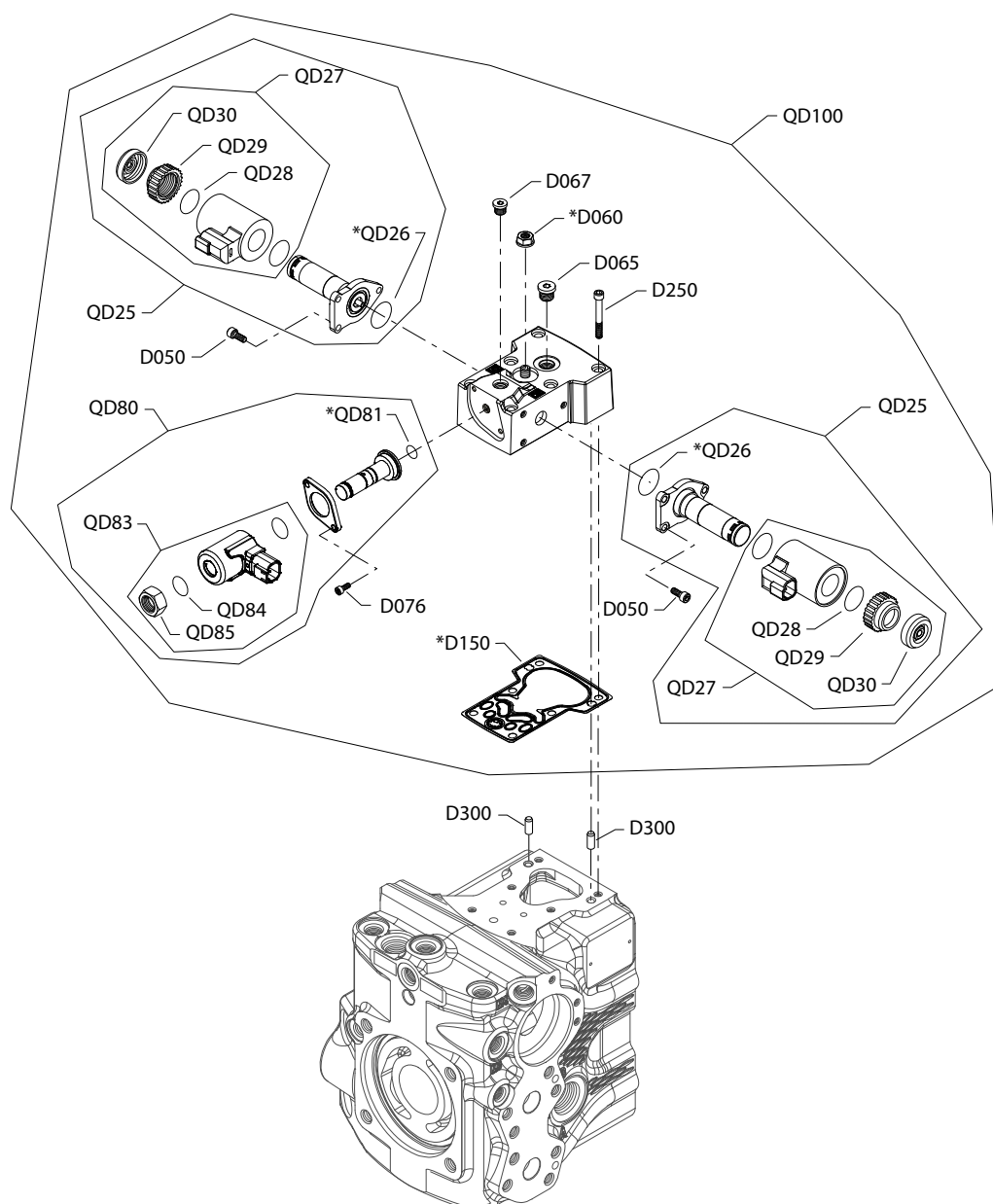
Order code: MA5

QD25	16-32		140751	Proportional solenoid, 24v	2
QD27	16-32		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11004750	Coil nut	2
QD100	16-32		11170082	EDC kit, 24V, high gain spool, manual override, metric	1

Controls

MP1 control MG8, MH1

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612292 (9003508-0008)	Seal nut, M8	1
D065	16-32		5000572	Plug assembly, M12	1
D067	16-32		5000572	Plug assembly, M12	1
D076	16-32		067694	Screw, M4 x 10	2
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD30	16-32		11027883	Cap	2
QD81	16-32		11152257	O-ring	1
QD85	16-32		11140394	Coil nut	1

Order code: MG8

QD25	16-32		140750	Proportional solenoid, 12v	2
QD27	16-32		11004698	Coil kit, 12v, DEUTSCH	2
QD29	16-32		11004749	Coil nut	2
QD80	16-32		11231200	Solenoid valve, 12v	1
QD83	16-32		11232757	Coil kit, 12v	1
QD84	16-32		11232752	O-ring	1
QD100	16-32		11170083	EDC kit, 12V, manual override, CCO, metric	1

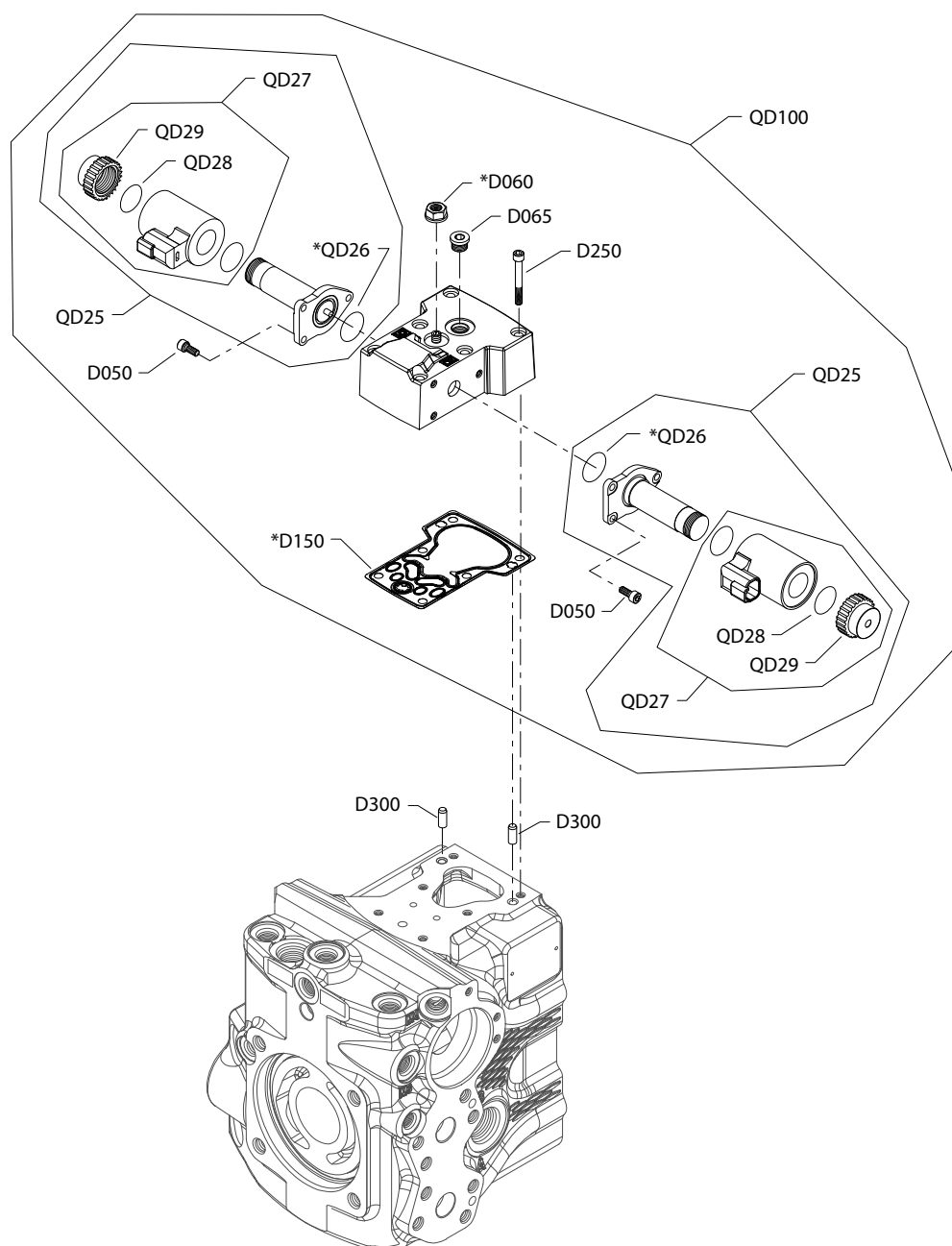
Order code: MH1

QD25	16-32		140751	Proportional solenoid, 24v	1
QD27	16-32		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11004750	Coil nut	2
QD80	16-32		11231201	Solenoid valve, 24v	1
QD83	16-32		11232697	Coil kit, 24v	1
QD84	16-32		11232752	O-ring	1
QD100	16-32		11170085	EDC kit, 24V, manual override, CCO, metric	1

Controls

MP1 control SA2, SA3

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		140642	Plug assembly, SAE	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2

Order code: SA2

QD25	16-32		11012457	Proportional solenoid, 12v	2
QD27	16-32		11028018	Coil kit, 12v, DEUTSCH connector	2
QD29	16-32		11027046	Coil nut	2
QD100	16-32		11019680	EDC kit, 12V	1

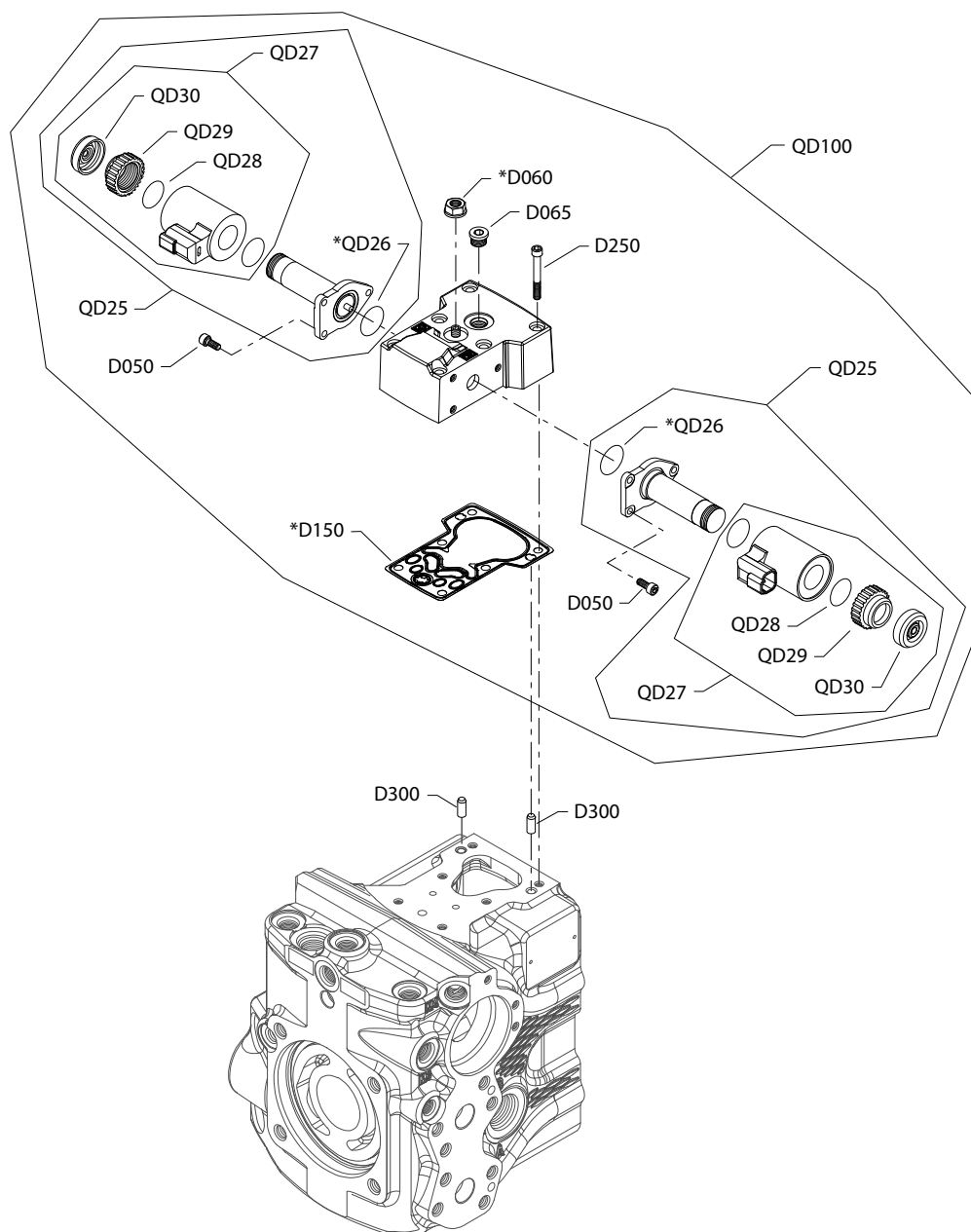
Order code: SA3

QD25	16-32		11012459	Proportional solenoid, 24v	2
QD27	16-32		11028019	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11028024	Coil nut	2
QD100	16-32		11019681	EDC kit, 24V	1

Controls

MP1 control SA4, SA5

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		140642	Plug assembly, SAE	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD30	16-32		11027883	Cap	2

Order code: SA4

QD25	16-32		140750	Proportional solenoid, 12v	2
QD27	16-32		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-32		11004749	Coil nut	2
QD100	16-32		11019732	EDC kit, 12V, high gain spool, manual override	1

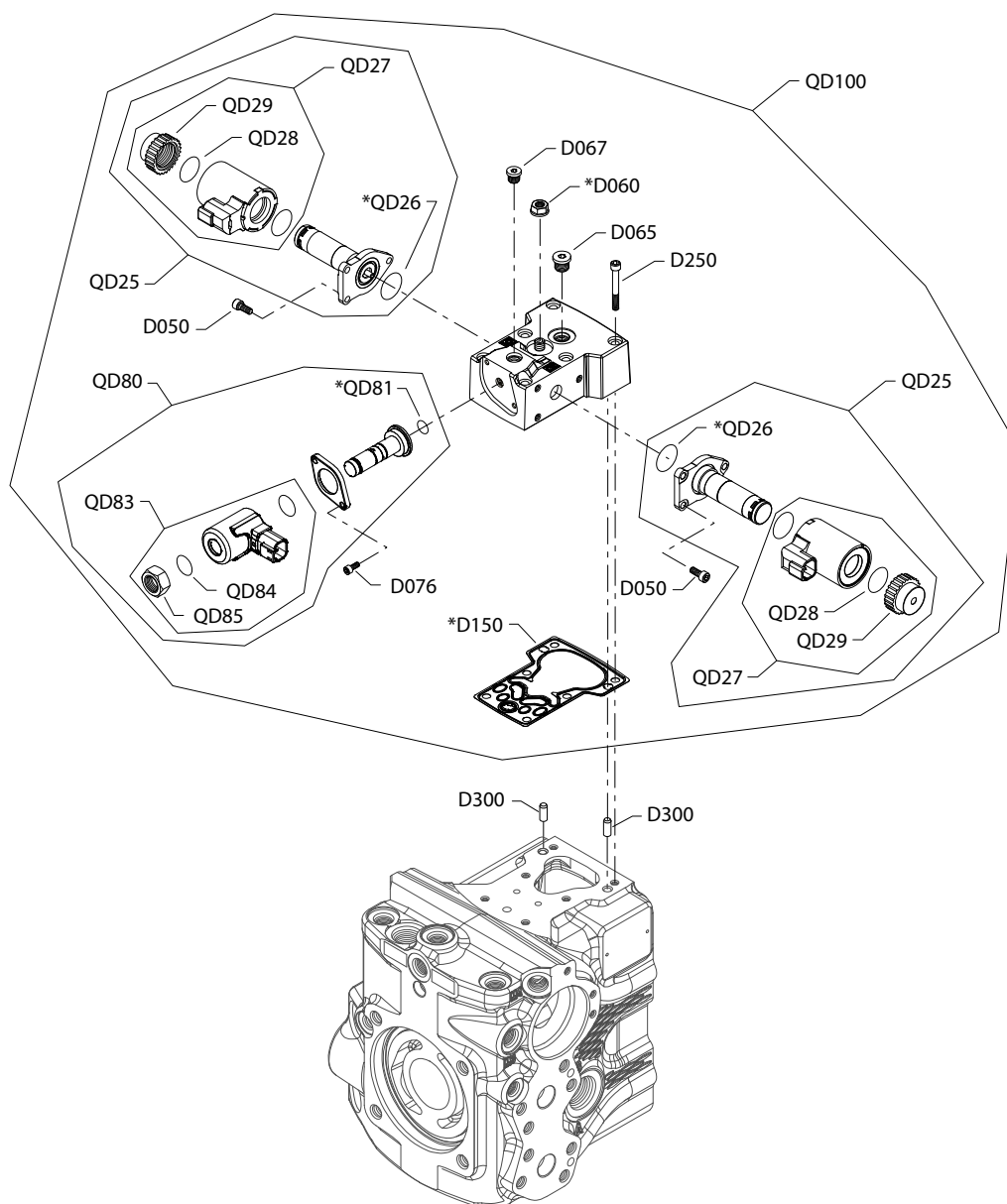
Order code: SA5

QD25	16-32		140751	Proportional solenoid, 24v	2
QD27	16-32		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11004750	Coil nut	2
QD100	16-32		11019733	EDC kit, 24V, high gain spool, manual override	1

Controls

MP1 control SE7, SE8

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		140642	Plug assembly, SAE	1
D067	16-32		140642	Plug assembly	1
D076	16-32		067694	Screw, M4 x 10	2
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD81	16-32		11152257	O-ring	1
QD84	16-32		11232752	O-ring	1
QD85	16-32		11140394	Coil nut	1

Order code: SE7

QD25	16-32		11012457	Proportional solenoid, 12v	2
QD27	16-32		11028018	Coil kit, 12v, DEUTSCH connector	2
QD29	16-32		11027046	Coil nut	2
QD80	16-32		11231200	Solenoid valve, 12v	1
QD83	16-32		11232757	Coil kit, 12v	1
QD100	16-32		11147471	EDC kit, 12V, CCO	1

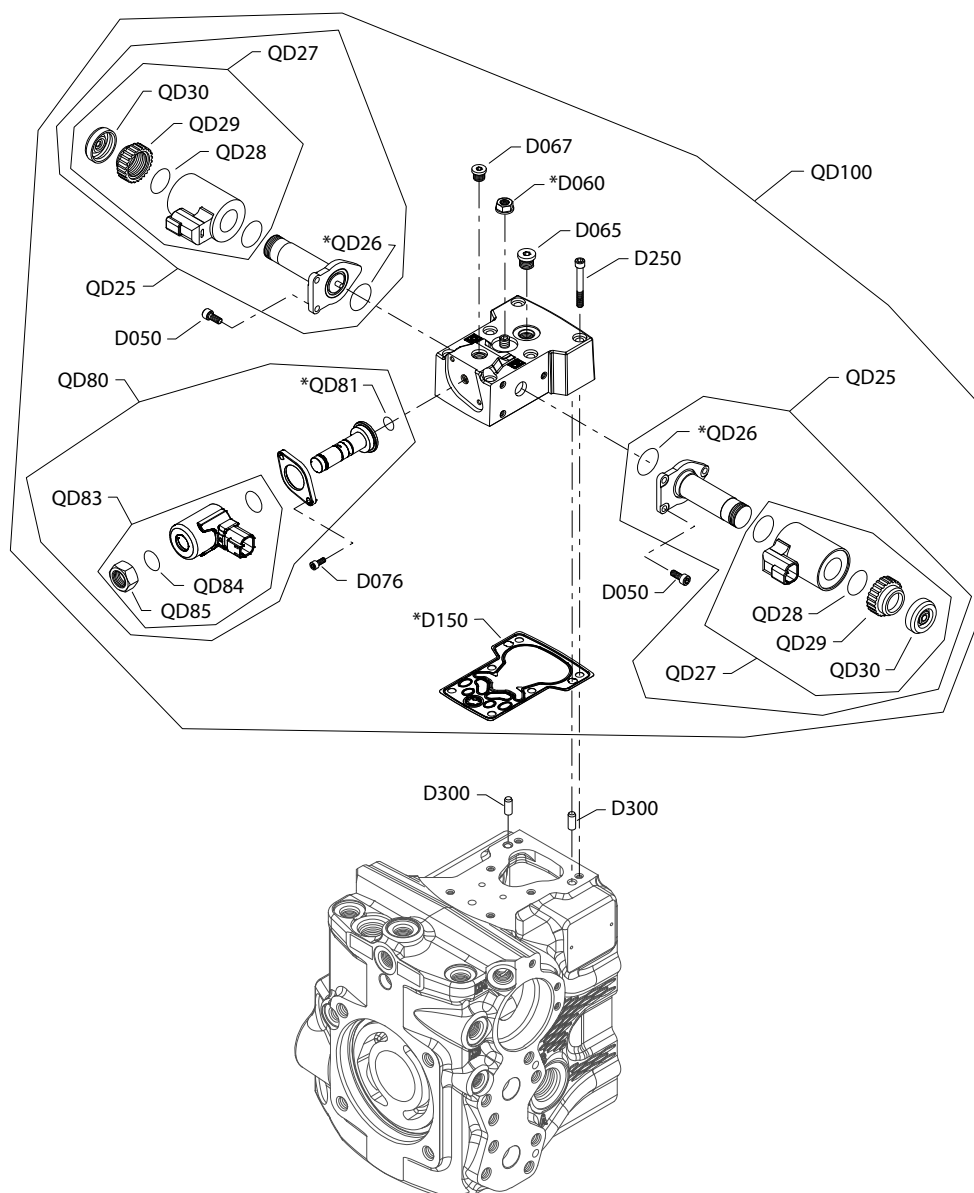
Order code: SE8

QD25	16-32		11012459	Proportional solenoid, 24v	2
QD27	16-32		11028019	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11028024	Coil nut	2
QD80	16-32		11231201	Solenoid valve, 24v	1
QD83	16-32		11232697	Coil kit, 24v	1
QD100	16-32		11147472	EDC kit, 24V, CCO	1

Controls

MP1 control SG8, SH1

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		140642	Plug assembly, SAE	1
D067	16-32		140642	Plug assembly	1
D076	16-32		067694	Screw, M4 x 10	2
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD81	16-32		11152257	O-ring	1
QD85	16-32		11140394	Coil nut	1

Order code: SG8

QD25	16-32		140750	Proportional solenoid, 12v	2
QD27	16-32		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-32		11004749	Coil nut	2
QD30	16-32		11027883	Cap	2
QD80	16-32		11231200	Solenoid valve, 12v	1
QD83	16-32		11232757	Coil kit, 12v	1
QD84	16-32		11232752	O-ring	1
QD100	16-32		11155365	EDC kit, 12V, manual override, CCO	1

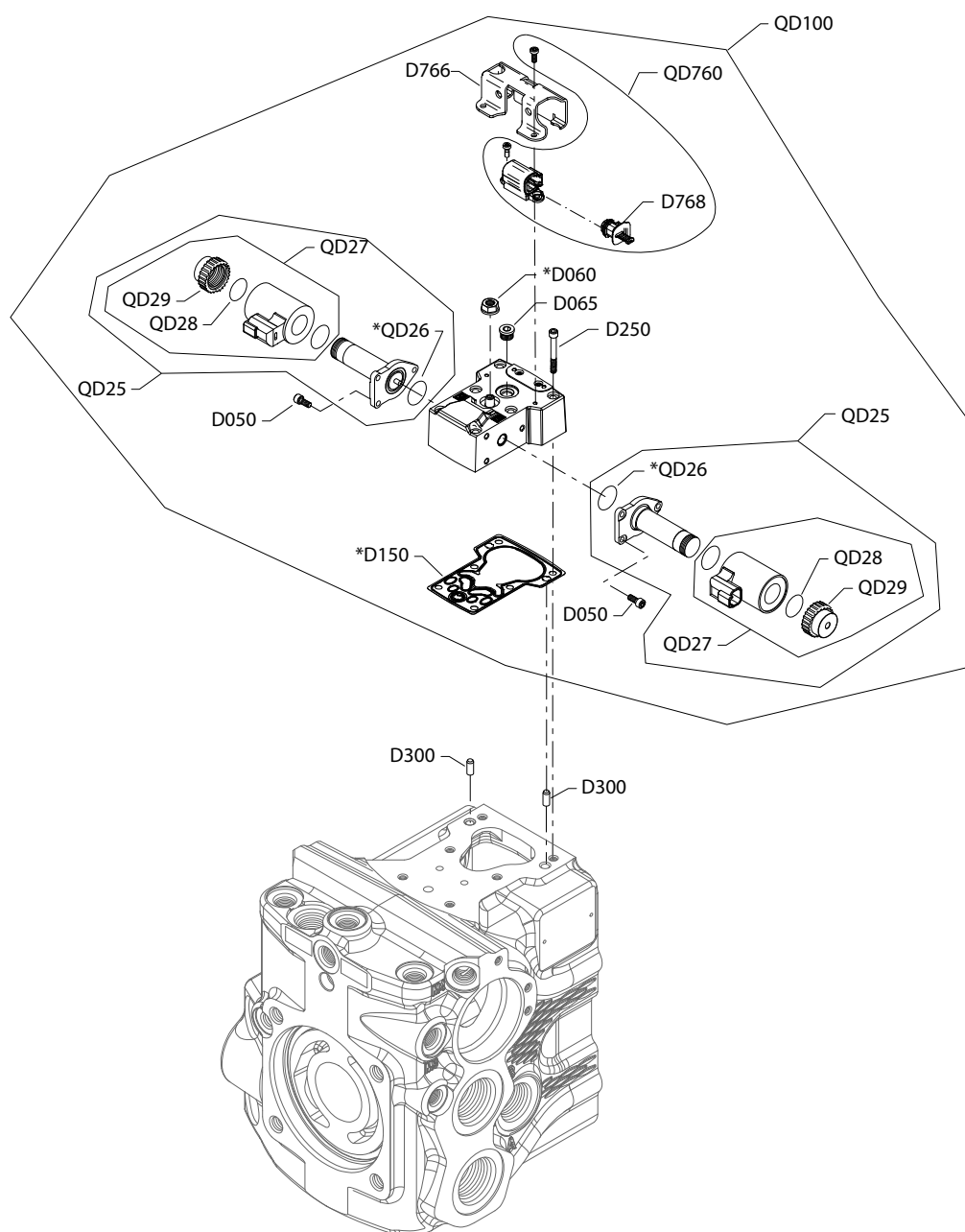
Order code: SH1

QD25	16-32		140751	Proportional solenoid, 24v	2
QD27	16-32		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11004750	Coil nut	2
QD30	16-32		11027883	Cap	2
QD80	16-32		11231201	Solenoid valve, 24v	1
QD83	16-32		11232697	Coil kit, 24v	1
QD84	16-32		11232752	O-ring	1
QD100	16-32		11170084	EDC kit, 24V, manual override, CCO	1

Controls

MP1 control SH2

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Order code: SH2

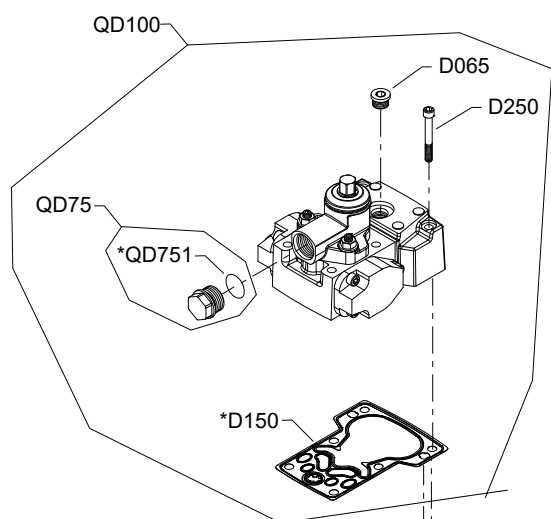
Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	18-25		716860	Screw, M5 x 12	6
D060	18-25		612291	Seal nut, M8	1
D065	18-25		9005110-4400	Plug assembly	1
D150	18-25		11227209	Control gasket	1
D250	18-25		505038	Screw, M6 x 45	6
D300	18-25		310979	Dowel pin	2
D766	18-25		11187406	Protection cover	1
D768	18-25		11184617	Paint cover	1
QD100	18-25		11196619	EDC kit, 12V, ASNSR	1
QD25	18-25		11012457	Proportional solenoid, 12v	2
QD26	18-25		11001952	O-ring	2
QD27	18-25		11028018	Coil kit, 12v, DEUTSCH connector	2
QD28	18-25		063172	O-ring	2
QD29	18-25		11027046	Coil nut	2
QD760	18-25		11290138	EDC angle sensor kit	1

Controls

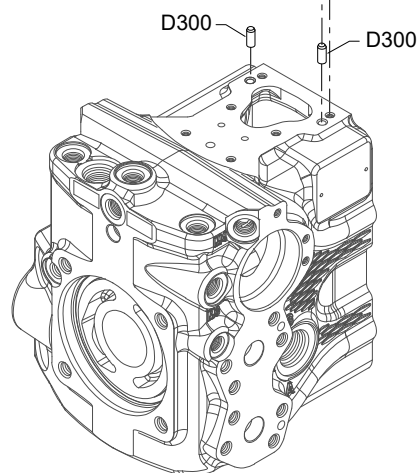
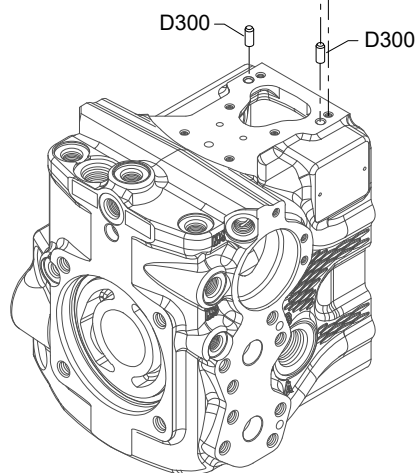
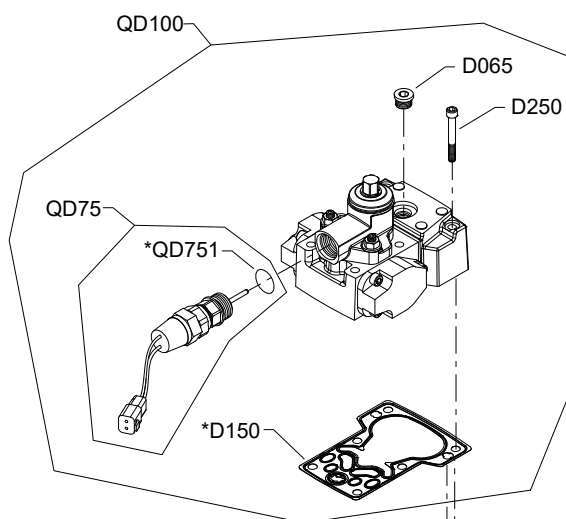
MP1 control MM1, MM2

Parts configuration

(MM1)



(MM2)



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D065	16-32		5000572	Plug assembly, M12	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD751	16-32		001131 (9004201-5000)	O-ring	1

Order code: MM1

QD75	16-32		11119332	Spring seat assembly	1
QD100	16-32		11170088	MDC kit	1

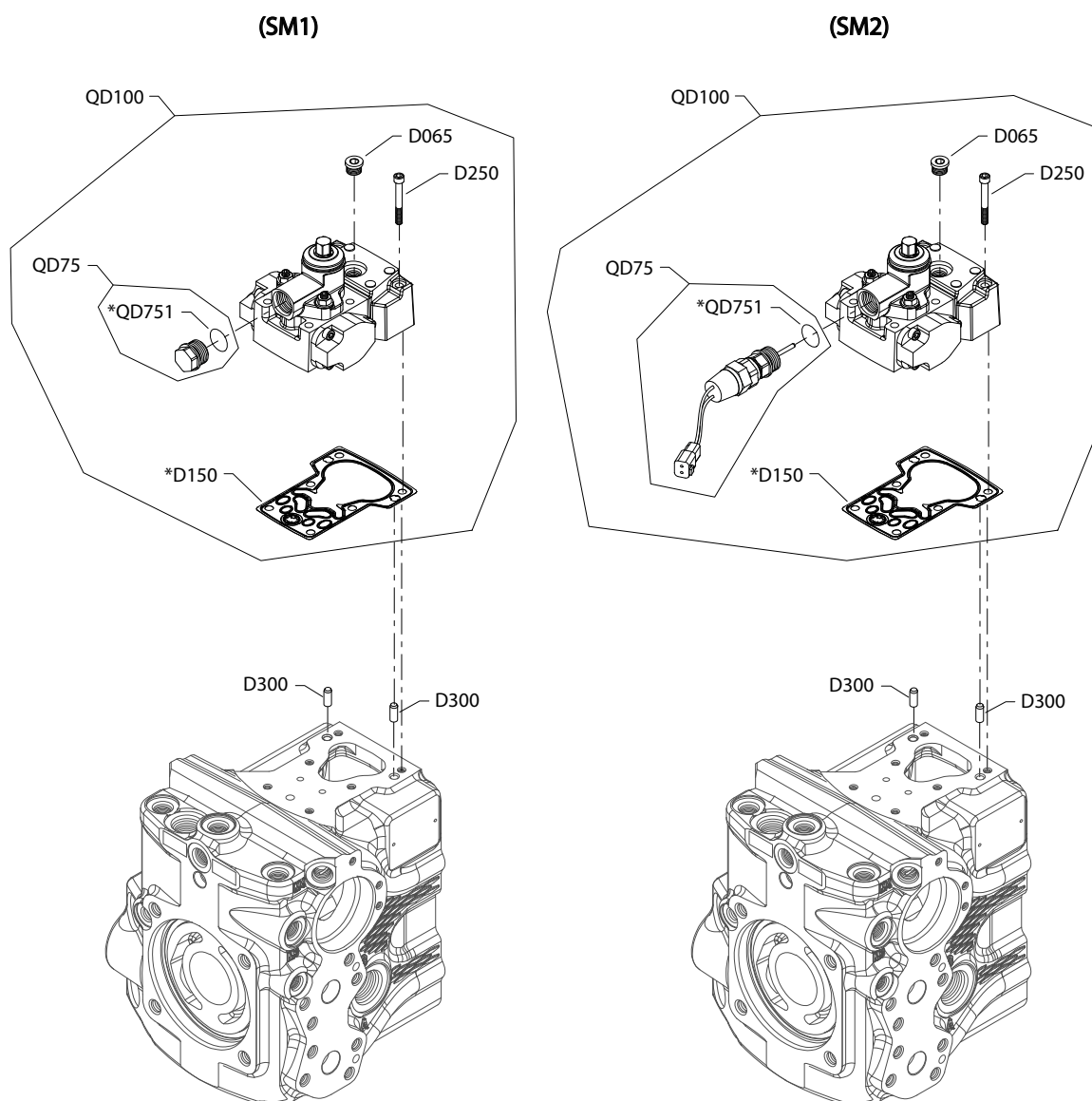
Order code: MM2

QD75	16-32		11328169	Spring seat/neutral start switch assembly	1
QD100	16-32		11170089	MDC kit with neutral start switch, metric	1

Controls

MP1 control SM1, SM2

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		140642	Plug assembly, SAE	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD751	16-32		001131 (9004201-5000)	O-ring	1

Order code: SM1

QD75	16-32		11119332	Spring seat assembly	1
QD100	16-32		11141225	MDC kit	1

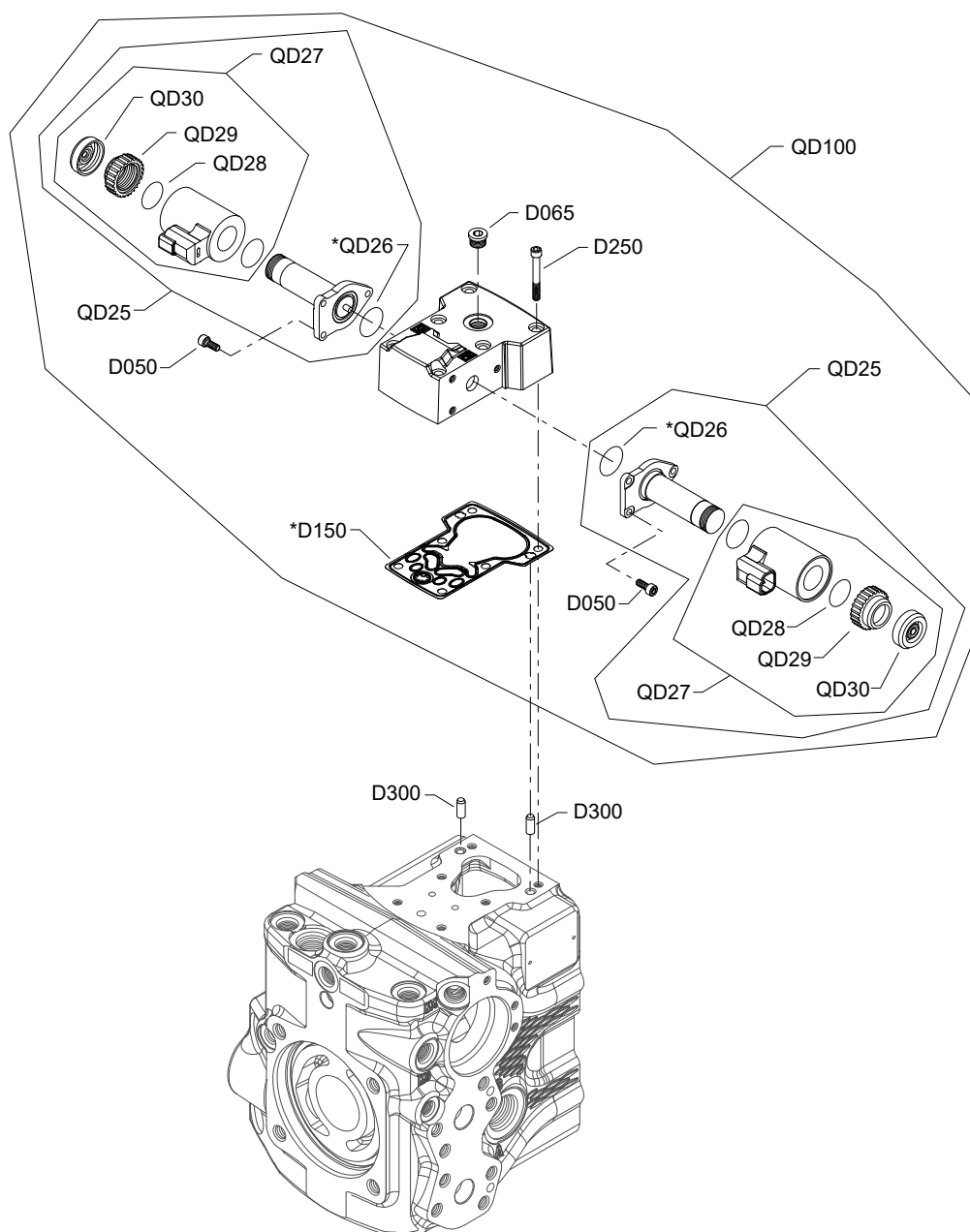
Order code: SM2

QD75	16-32		11328169	Spring seat/neutral start switch assembly	1
QD100	16-32		11141236	MDC kit with neutral start switch	1

Controls

MP1 control MA9, MB1

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D065	16-32		5000572	Plug assembly, M12	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD30	16-32		11027883	Cap	2

Order code: MA9

QD25	16-32		141301	Proportional solenoid, 12v	2
QD27	16-32		11005222	Coil kit, 12v, Deutsch connector	2
QD29	16-32		11004749	Coil nut	2
QD100	16-32		11170086	FNR kit, 12V, manual override, metric	1

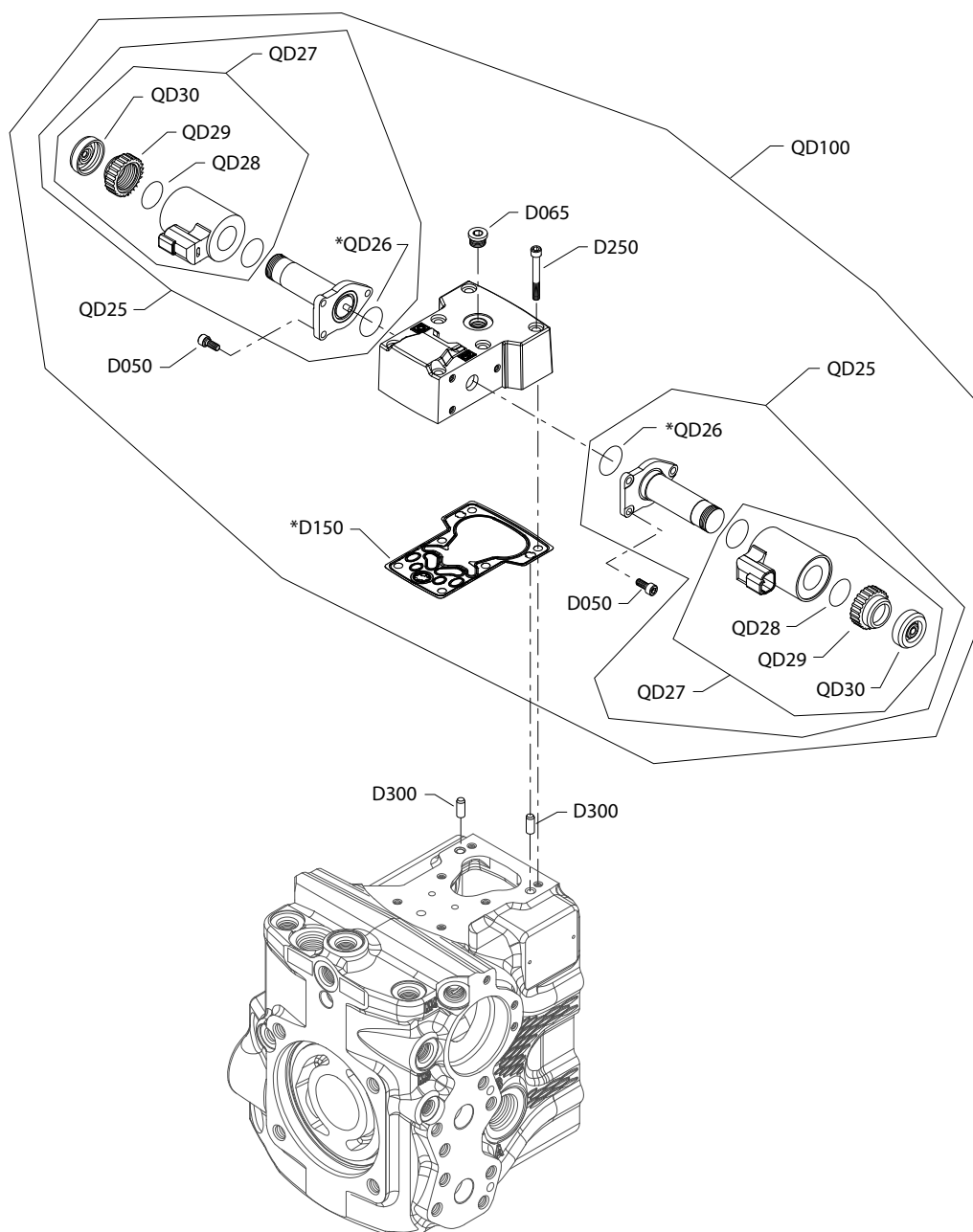
Order code: MB1

QD25	16-32		141313	Proportional solenoid, 24v	2
QD27	16-32		11005223	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11004750	Coil nut	2
QD100	16-32		11170087	FNR kit, 24V, manual override, metric	1

Controls

MP1 control SA9, SB1

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	6
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D050	16-32		716860	Screw, M5 x 12	6
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D065	16-32		140642	Plug assembly, SAE	1
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
D150	16-32		11227209	Control gasket	1
D250	16-32		505038	Screw, M6 x 45	6
D300	16-32		310979	Dowel pin	2
QD26	16-32		11001952	O-ring	2
QD28	16-32		063172	O-ring	2
QD30	16-32		11027883	Cap	2

Order code: SA9

QD25	16-32		141301	Proportional solenoid, 12v	2
QD27	16-32		11005222	Coil kit, 12v, DEUTSCH connector	2
QD29	16-32		11004749	Coil nut	2
QD100	16-32		11025905	FNR kit, 12V, manual override, metric	1

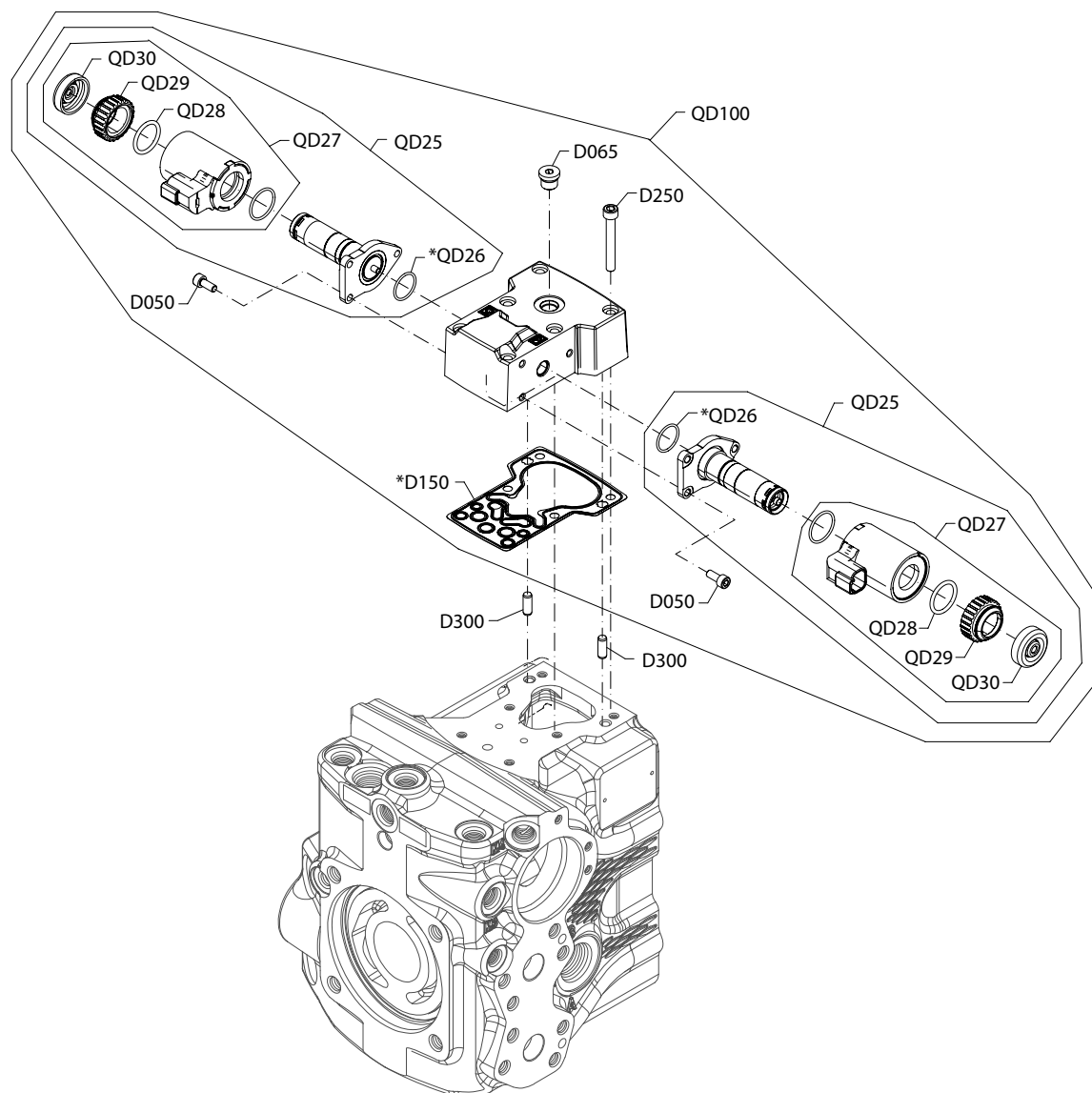
Order code: SB1

QD25	16-32		141313	Proportional solenoid, 24v	2
QD27	16-32		11005223	Coil kit, 24v, DEUTSCH connector	2
QD29	16-32		11004750	Coil nut	2
QD100	16-32		11025906	FNR kit, 24V, manual override, metric	1

Controls

MP1 control MN1, MN2, SN1, SN2

Parts configuration



Generic housing used to show part location only.

* Included in overhaul seal kit Q210

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	17-42		716860	Screw M5 x 12	6
D150	17-42		11227209	Control gasket	1
D250	17-42		505038	Screw M6 x 45	6
D300	17-42		310979	Dowel Pin	2
QD26	17-42		11001952	O-ring	2
QD28	17-42		63172	O-ring	2
QD29	17-42		11004749	Screw nut	2
QD30	17-42		11027883	Cap	2

Order code: MN1

D065	17-42		5000572	Plug assembly, M12	1
QD25	17-42		140750	Proportional solenoid, 12v	2
QD27	17-42		11004698	Coil kit, 12v DEUTSCH connector	2
QD100	17-42		11192300	NFPE control kit, 12v	1

Order code: MN2

D065	17-42		5000572	Plug assembly, M12	1
QD25	17-42		140751	Proportional solenoid, 24v	2
QD27	17-42		11004700	Coil kit, 24v DEUTSCH connector	2
QD100	17-42		11192301	NFPE control kit, 24v	1

Order code: SN1

D065	17-42		9005110-4400	Plug assembly	1
QD25	17-42		140750	Proportional solenoid, 12v	2
QD27	17-42		11004698	Coil kit, 12v DEUTSCH connector	2
QD100	17-42		11147921	NFPE control kit, 12v	1

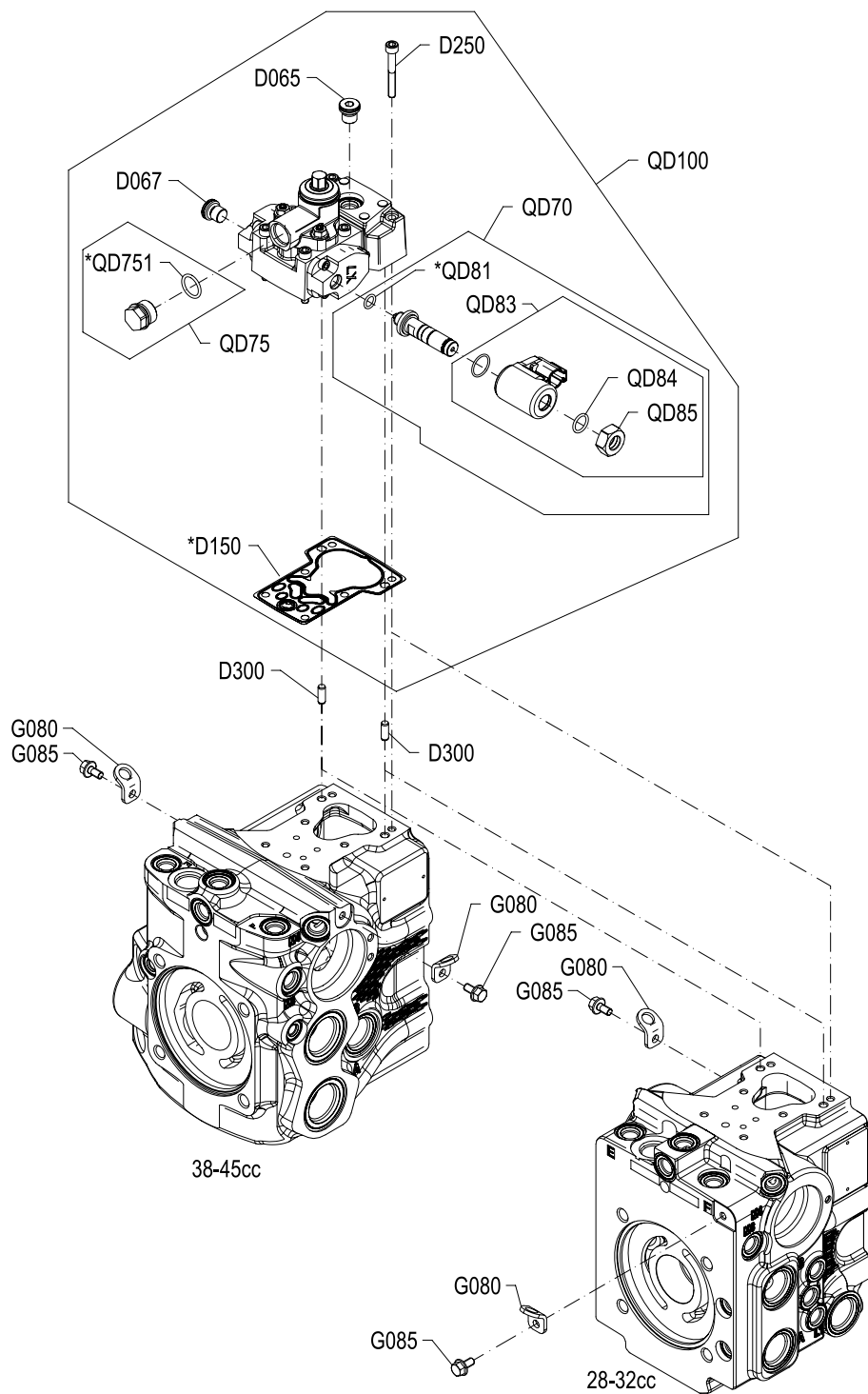
Order code: SN2

D065	17-42		9005110-4400	Plug assembly	1
QD25	17-42		140751	Proportional solenoid, 24v	2
QD27	17-42		11004700	Coil kit, 24v DEUTSCH connector	2
QD100	17-42		11147925	NFPE control kit, 24v	1

Controls

MP1 control MM3, MM4, SM3, SM4

Parts configuration



* Included in overhaul seal kit Q210

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D150	18-27		11227209	Control gasket	1
D250	18-27		505038	Screw, M6 x 45	6
D300	18-27		310979	Dowel pin	2
G080	19-26		4800754	Bracket	2
G085	19-26		508438	Screw	2
QD75	18-27		11119332	Spring seat assembly	1
QD751	18-27		001131	O-ring	1
QD81	18-27		11152257	O-ring	1
QD84	24-01		11232752	O-ring (SB-2024-007 on page 117)	1
QD85	18-27		11140394	Coil nut	1

Order code: MM3

D065	18-27		5000572	Plug assembly, M12	1
D067	18-25		5000572	Plug assembly	1
QD100	18-27		11218895	MDC kit, 12V, CCO	1
QD70	18-27		11231212	Solenoid, 12V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253939	Coil kit, 12V, DEUTSCH (SB-2024-007 on page 117)connector, CCO	1

Order code: MM4

D065	18-27		5000572	Plug assembly, M12	1
D067	18-25		5000572	Plug assembly	1
QD100	18-25		11218896	MDC kit, 24V, CCO	1
QD70	18-25		11231213	Solenoid, 24V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253938	Coil kit, 24V, DEUTSCH (SB-2024-007 on page 117) connector, CCO	1

Order code: SM3

D065	18-25		9005110-4400	Plug assembly	1
D067	18-25		9005110-4400	Plug assembly	1
QD100	18-25		11218976	MDC kit, 12V, CCO	1
QD70	18-25		11231212	Solenoid, 12V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253939	Coil kit, 12V, DEUTSCH (SB-2024-007 on page 117) connector, CCO	1

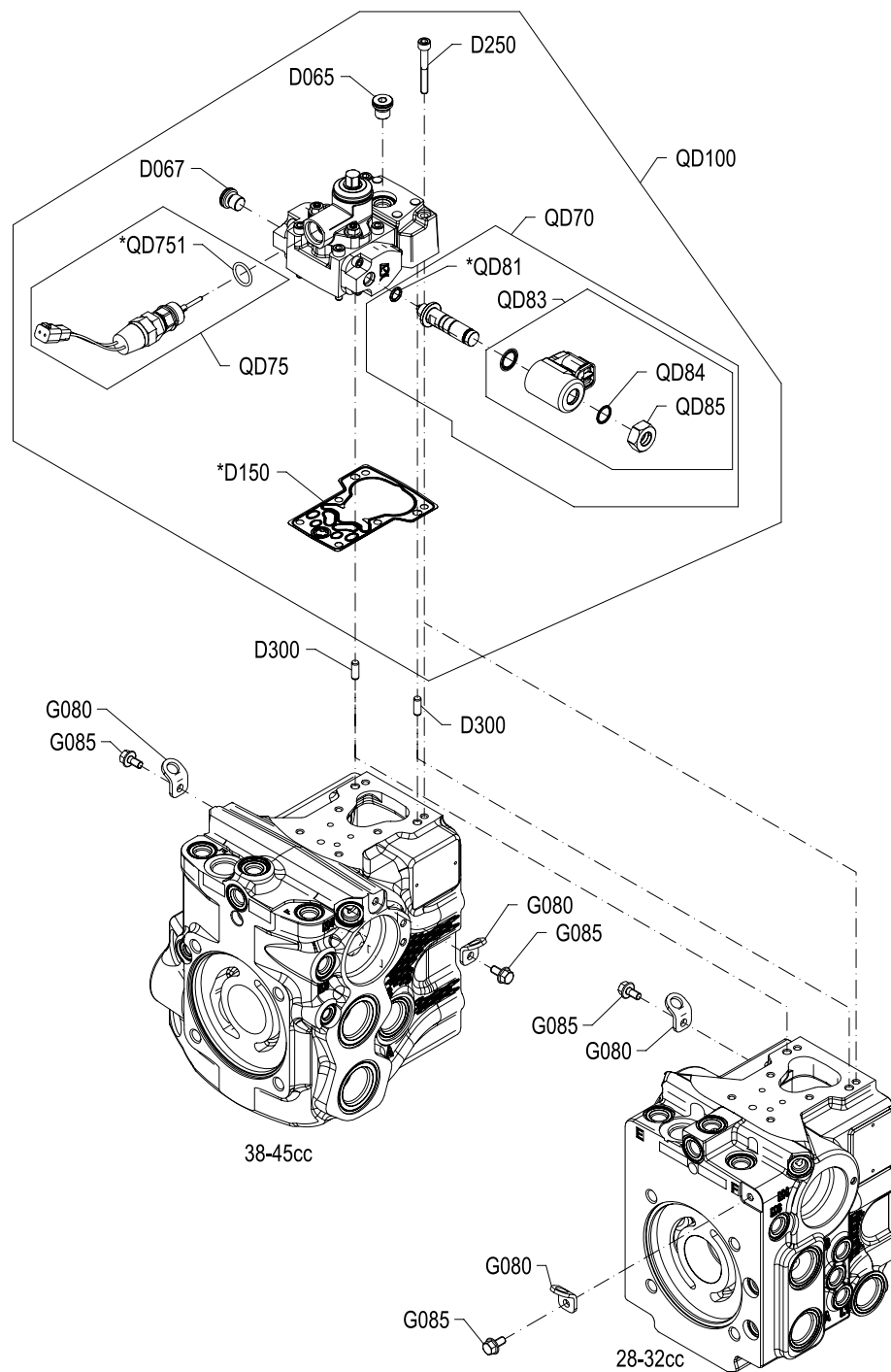
Order code: SM4

D065	18-25		9005110-4400	Plug assembly	1
D067	18-25		9005110-4400	Plug assembly	1
QD100	18-25		11218977	MDC kit, 24V, CCO	1
QD70	18-25		11231213	Solenoid, 24V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253938	Coil kit, 24V, DEUTSCH (SB-2024-007 on page 117) connector, CCO	1

Controls

MP1 control MM5, MM6, SM5, SM6

Parts configuration



* Included in overhaul seal kit Q210

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D150	18-25		11227209	Control gasket	1
D250	18-25		505038	Screw, M6 x 45	6
D300	18-25		310979	Dowel pin	2
G080	19-26		4800754	Bracket	2
G085	19-26		508438	Screw	2
QD75	18-25		11328169	Spring seat/neutral start switch (NSS) assembly	1
QD751	18-27		001131	O-ring	1
QD81	18-25		11152257	O-ring	1
QD84	24-01		11232752	O-ring (SB-2024-007 on page 117)	1
QD85	18-25		11140394	Coil nut	1

Order code: MM5

D065	18-25		5000572	Plug assembly, M12	1
D067	18-25		5000572	Plug assembly	1
QD100	18-25		11218897	MDC kit, 12V, CCO + NSS	1
QD70	18-25		11231212	Solenoid, 12V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253939	Coil kit, 12V, DEUTSCH (SB-2024-007 on page 117)connector, CCO	1

Order code: MM6

D065	18-25		5000572	Plug assembly, M12	1
D067	18-25		5000572	Plug assembly	1
QD100	18-25		11218898	MDC kit, 24V, CCO + NSS	1
QD70	18-25		11231213	Solenoid, 24V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253938	Coil kit, 24V, DEUTSCH (SB-2024-007 on page 117) connector, CCO	1

Order code: SM5

D065	18-25		9005110-4400	Plug assembly	1
D067	18-25		9005110-4400	Plug assembly	1
QD100	18-25		11218978	MDC kit, 12V, CCO + NSS	1
QD70	18-25		11231212	Solenoid, 12V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253939	Coil kit, 12V, DEUTSCH (SB-2024-007 on page 117) connector, CCO	1

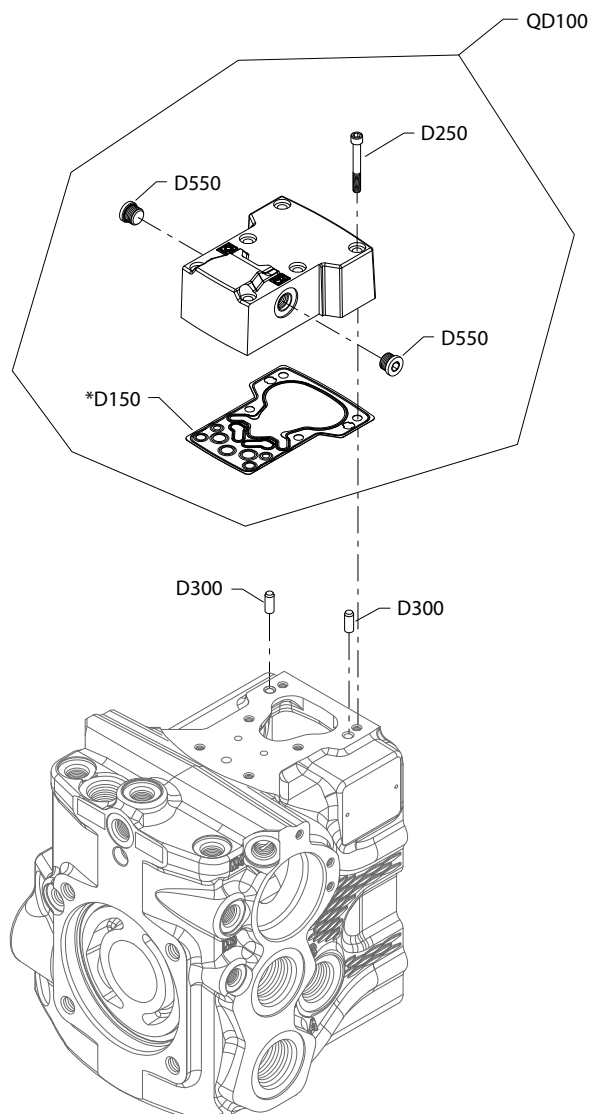
Order code SM6

D065	18-25		9005110-4400	Plug assembly	1
D067	18-25		9005110-4400	Plug assembly	1
QD100	18-25		11218979	MDC kit, 24V, CCO + NSS	1
QD70	18-25		11231213	Solenoid, 24V, DT04-2P (SB-2024-007 on page 117)	1
QD83	24-01		11253938	Coil kit, 24V, DEUTSCH (SB-2024-007 on page 117) connector, CCO	1

Controls

MP1 control MNN, SNN

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D150	18-25		11227209	Control gasket	1
D250	18-25		505038	Screw, M6 x 45	6
D300	18-25		310979	Dowel pin	2

Order code: MNN

D550	18-25		5000438	Plug assembly	2
QD100	18-25		11216838	Control cover kit	1

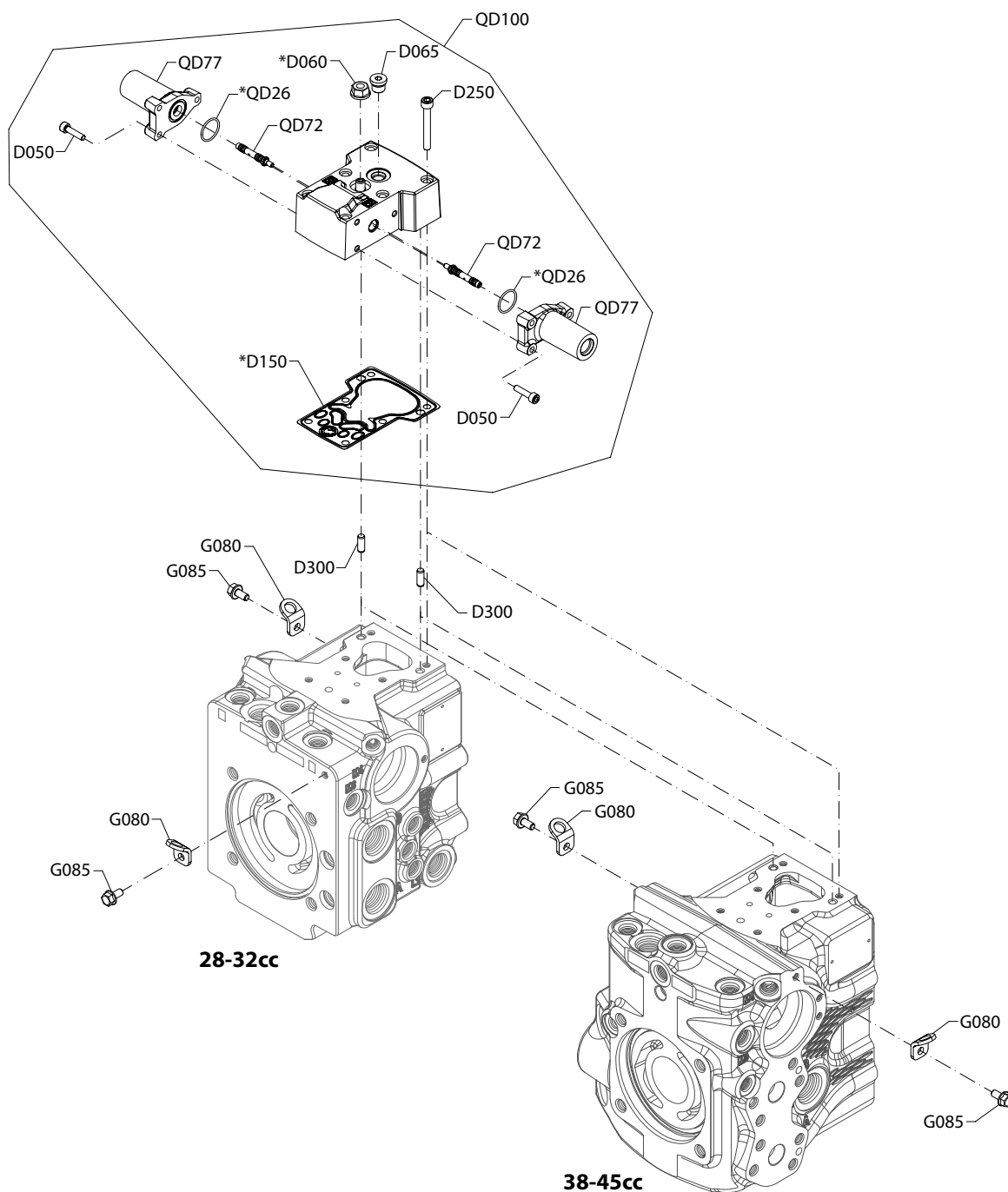
Order code: SNN

D550	18-25		9005110-5600	Plug assembly	2
QD100	18-25		11121984	Control cover kit	1

Controls

MP1 Control MT1, MT2

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	21-48		9007315-0505	Screw, M5 x 20	6
D060	21-48		612291 (9003508-0008)	Seal nut, M8	1
D065	21-48		5000572	Plug assembly, M12	1
D150	21-48		11227209	Control gasket	1
D250	21-48		505038	Screw, M6 x 45	6
D300	21-48		310979	Dowel pin	2
G080	21-48		4800754	Lifting bracket	2
G085	21-48		508438	Hex screw, M6 x 12	2
QD26	21-48		11124515	O-ring	2

Order code: MT1

QD72	21-48		11175560	Actuator spool	2
QD77	21-48		11174520	Actuator housing	2
QD100	21-48		11189184	HDC kit	1

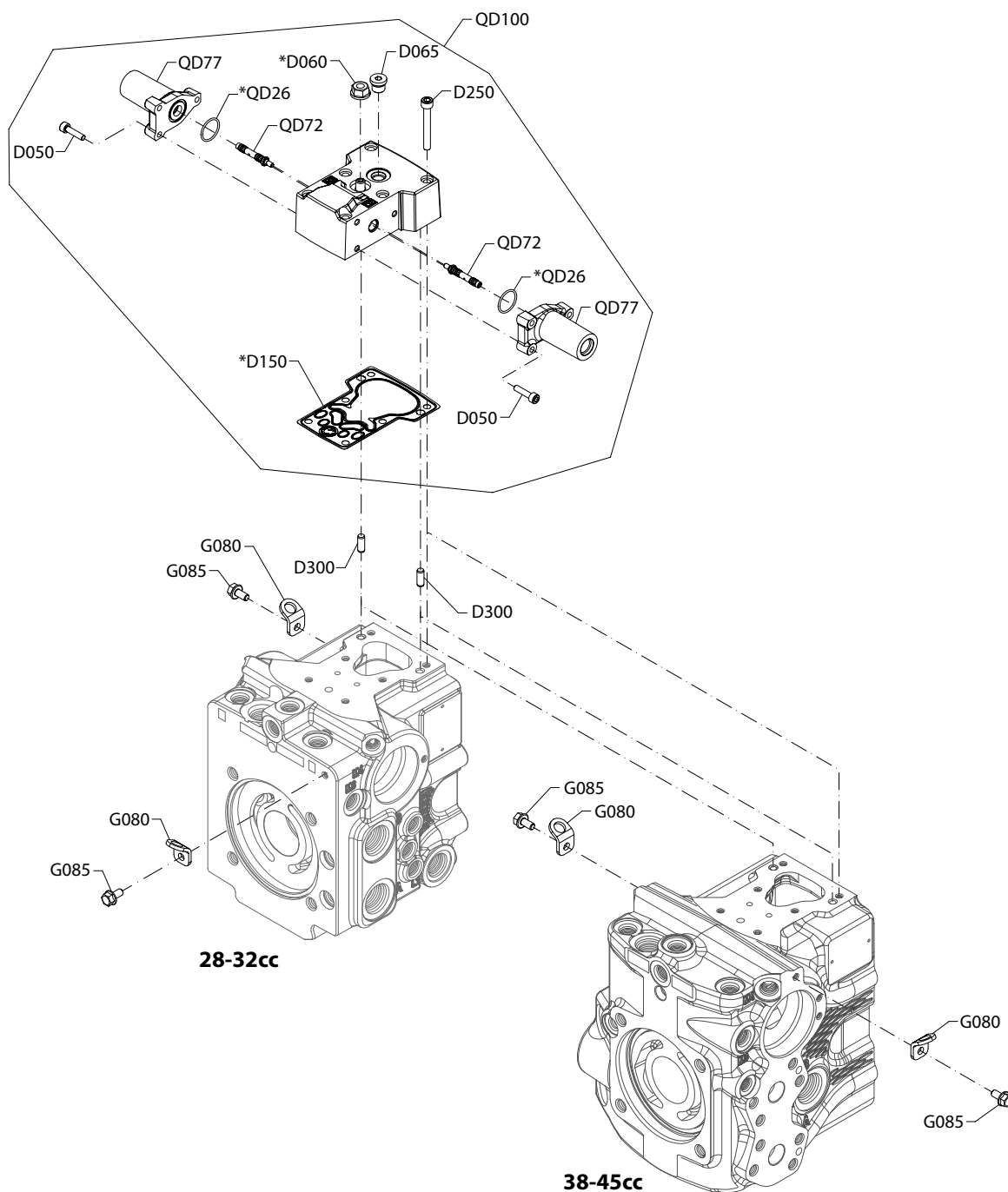
Order code: MT2

QD72	21-48		11175522	Actuator spool	2
QD77	21-48		11174518	Actuator housing	2
QD100	21-48		11189186	HDC kit	1

Controls

MP1 Control ST1, ST2

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Controls

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	21-48		9007315-0505	Screw, M5 x 20	6
D060	21-48		612291 (9003508-0008)	Seal nut, M8	1
D065	21-48		140642	Plug assembly	1
D150	21-48		11227209	Control gasket	1
D250	21-48		505038	Screw, M6 x 45	6
D300	21-48		310979	Dowel pin	2
G080	21-48		4800754	Lifting bracket	2
G085	21-48		508438	Hex screw, M6 x 12	2
QD26	21-48		11124515	O-ring	2

Order code: ST1

QD72	21-48		11175560	Actuator spool	2
QD77	21-48		11174519	Actuator housing	2
QD100	21-48		11189183	HDC kit	1

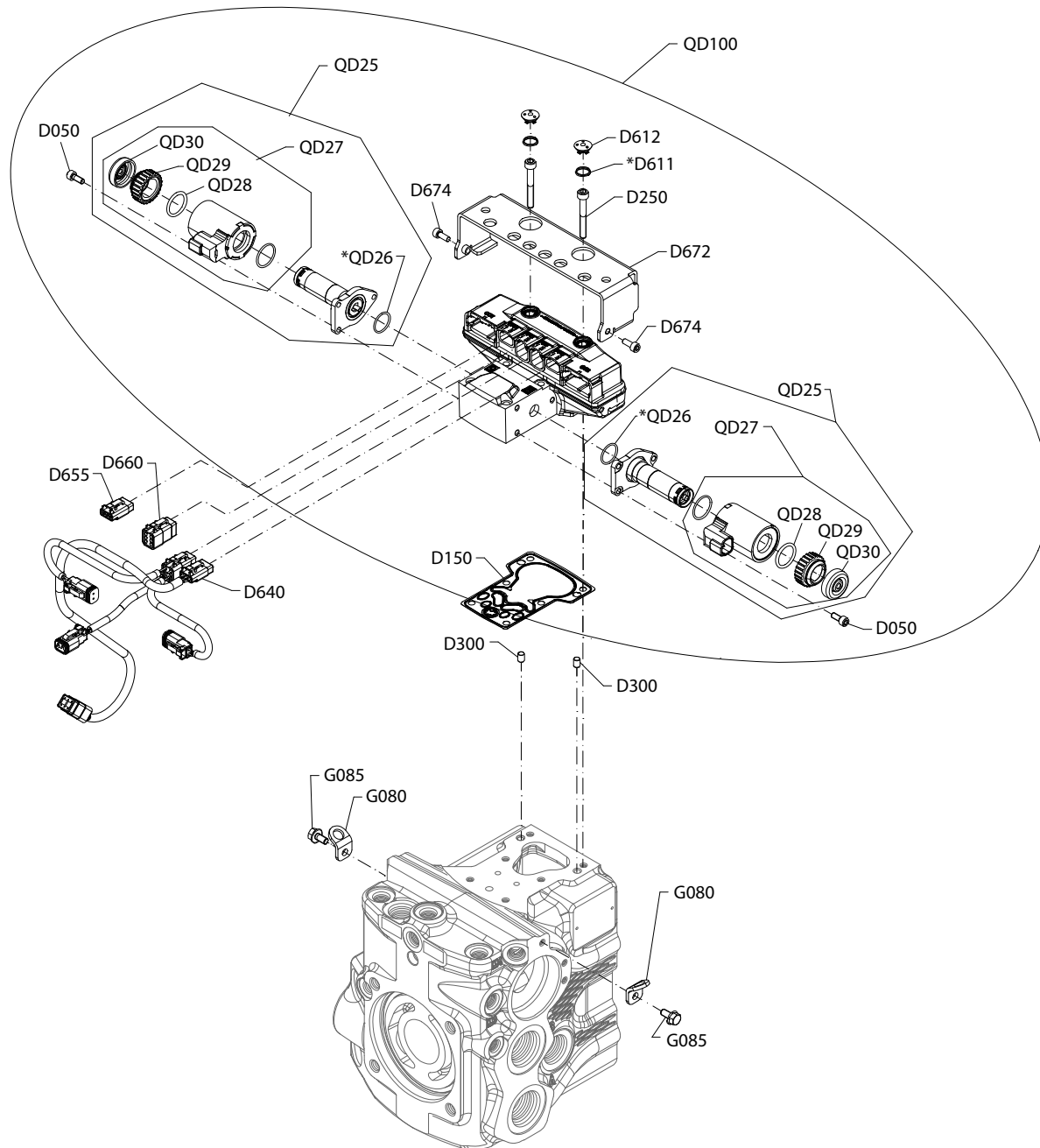
Order code: ST2

QD72	21-48		11175622	Actuator spool	2
QD77	21-48		11174517	Actuator housing	2
QD100	21-48		11189185	HDC kit	1

Controls

MP1 38/45 control AJ1

Parts configuration



* Included in overhaul seal kit Q210

Controls

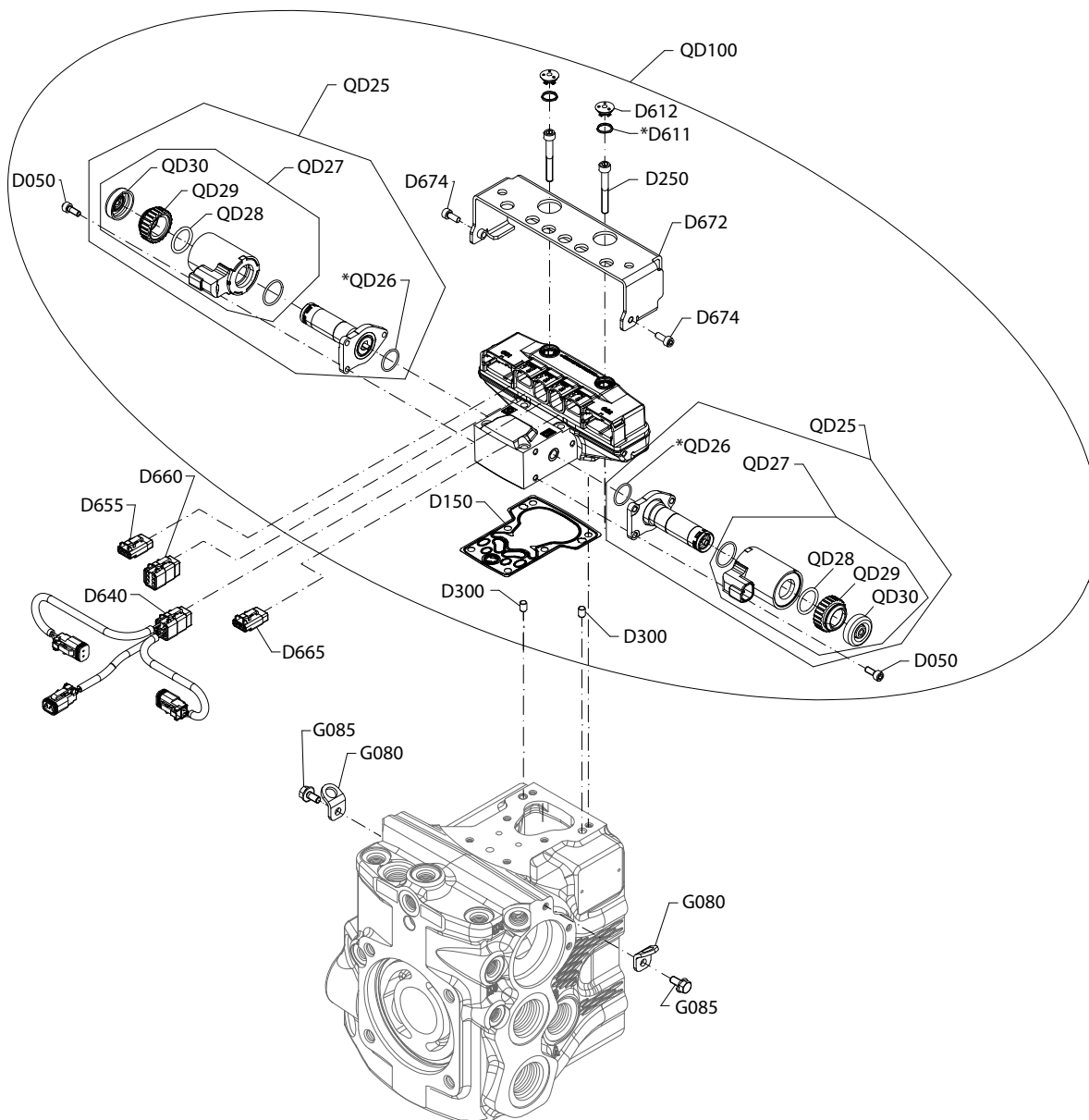
Order code: AJ1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	19-07		716860	Screw, M5x12	6
D150	19-07		11227209	Control gasket	1
D250	19-07		505038	Screw, M6x45	6
D300	19-07		11036469	Dowel pin	2
D610	19-07	21-12	11000467	Plug assembly (SB-2021-014 on page 116)	2
D611	21-13		11225703	O-ring	2
D612	21-13		11223708	Plug	2
D640	19-07		11023348	AC wiring harness	1
D655	19-07		11084827	Connector DTM 06-3S	1
D660	19-07		11084822	Connector DTM06-6S	1
D672	19-07		11151875	Protection	1
D674	19-07		716860	Screw, M5x12	2
G080	19-07		4800754	Lifting bracket	2
G081	19-07		11227284	Lifting bracket, long	1
G085	19-07		508438	Screw, M6x12	2
QD25	19-07		140750	Proportional solenoid, 12V	2
QD26	19-07		11001952	O-ring	2
QD27	19-07		11004698	Coil kit, 12V, DEUTSCH connector	2
QD28	19-07		063172	O-ring	2
QD29	19-07		11004749	Coil nut	2
QD30	19-07		11027883	Cap	2
QD100	19-07		11232792	Automotive control kit, 12V	1

Controls

MP1 38/45 control AU1

Parts configuration



* Included in overhaul seal kit Q210

Controls

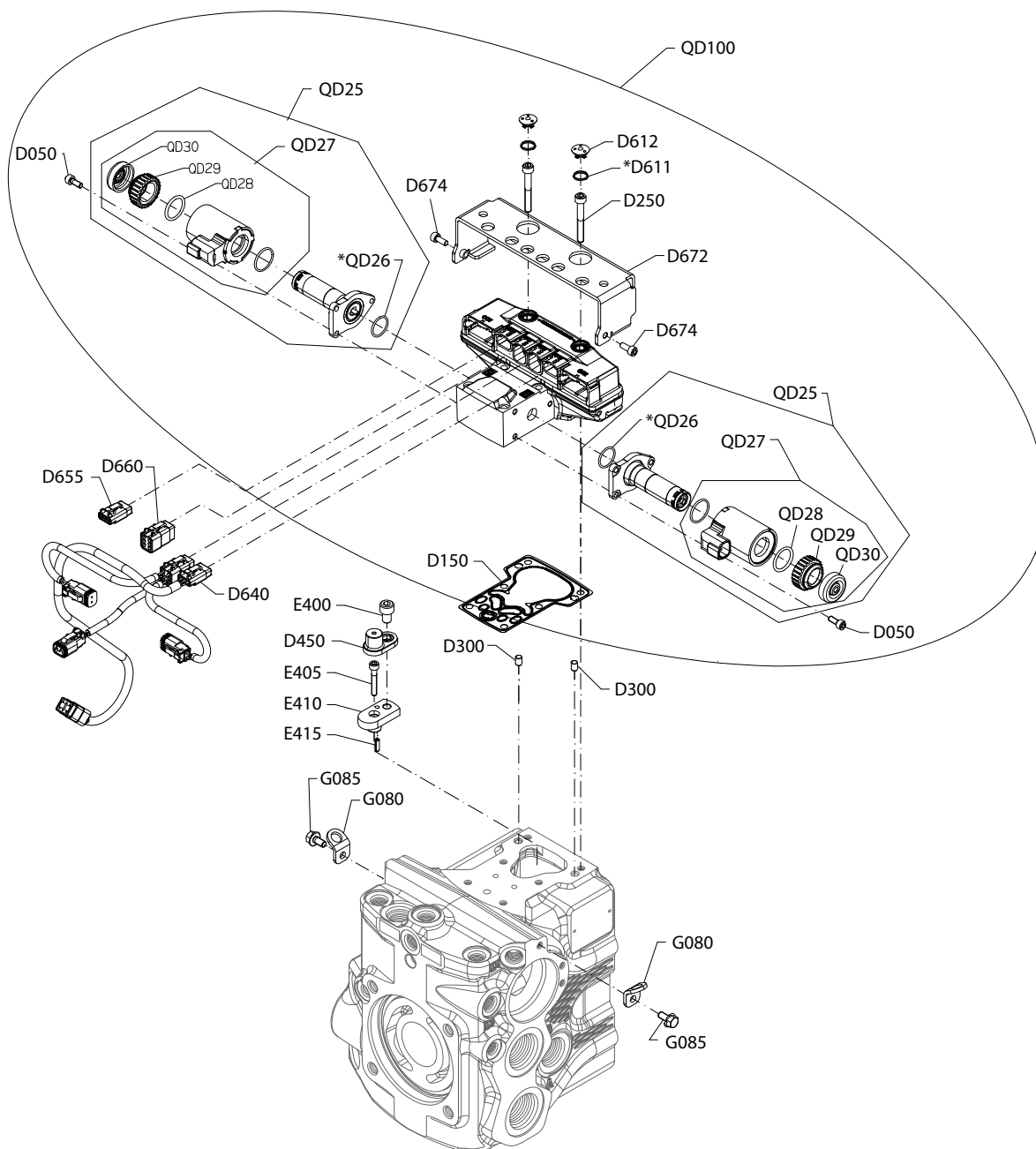
Order code: AU1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	19-07		716860	Screw, M5x12	6
D150	19-07		11227209	Control gasket	1
D250	19-07		505038	Screw, M6x45	6
D300	19-07		11036469	Dowel pin	2
D610	19-07	21-12	11000467	Plug assembly (SB-2021-014 on page 116)	2
D611	21-13		11225703	O-ring	2
D612	21-13		11223708	Plug	2
D640	19-07		11197432	AC wiring harness	1
D655	19-07		11084827	Connector DTM 06-3S	1
D660	19-07		11084822	Connector DTM06-6S	1
D665	19-07		11084827	Connector DTM 06-3S	1
D672	19-07		11151875	Protection	1
D674	19-07		716860	Screw, M5x12	2
G080	19-07		4800754	Lifting bracket	2
G085	19-07		508438	Screw, M6x12	2
QD25	19-07		140750	Proportional solenoid, 12V	2
QD26	19-07		11001952	O-ring	2
QD27	19-07		11004698	Coil kit, 12V, DEUTSCH connector	2
QD28	19-07		063172	O-ring	2
QD29	19-07		11004749	Coil nut	2
QD30	19-07		11027883	Cap	2
QD100	19-07		11232792	Automotive control kit, 12V	1

Controls

MP1 38/45 control AJ3

Parts configuration



* Included in overhaul seal kit Q210

Controls

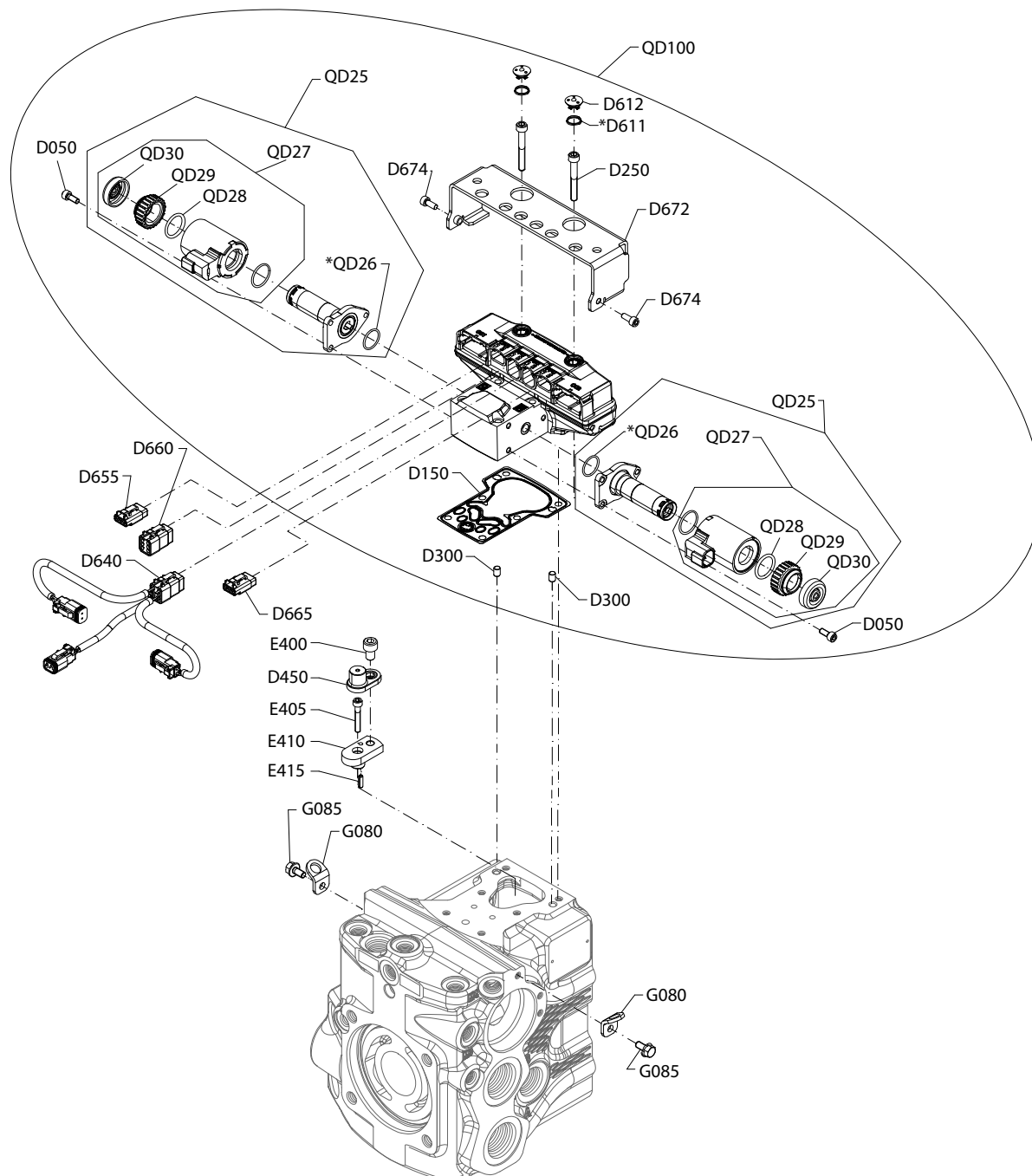
Order code: AJ3

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	19-07		716860	Screw, M5x 12	6
D150	19-07		11227209	Control gasket	1
D250	19-07		505038	Screw, M6x45	6
D300	19-07		11036469	Dowel pin	2
D450	19-07		11003097	Magnet carrier	1
D610	19-07	21-12	11000467	Plug assembly (SB-2021-014 on page 116)	2
D611	21-13		11066774	O-ring	2
D612	21-13		11223798	Plug	2
D640	19-07		11023348	AC wiring harness	1
D655	19-07		11084827	Connector DTM 06-3S	1
D660	19-07		11084822	Connector DTM 06-6S	1
D672	19-07		11151875	Protection	1
D674	19-07		716860	Screw, M5x 12	2
E400	19-07		11212891	Screw, M8x1.25	1
E405	19-07		141135	Screw, M5x30	1
E410	19-07		11212844	Magnet carrier spacer	1
E415	19-07		9004700-1508	Pin	1
G080	19-07		4800754	Lifting bracket	2
G085	19-07		508438	Screw, M6x12	2
QD25	19-07		140750	Proportional solenoid, 12V	2
QD26	19-07		11001952	O-ring	2
QD27	19-07		11004698	Coil kit, 12V, DEUTSCH connector	2
QD28	19-07		063172	O-ring	2
QD29	19-07		11004749	Coil nut	2
QD30	19-07		11027883	Cap	2
QD100	19-07		11232794	Automotive control kit, 12V	1

Controls

MP1 38/45 control AU3

Parts configuration



* Included in overhaul seal kit Q210

Controls

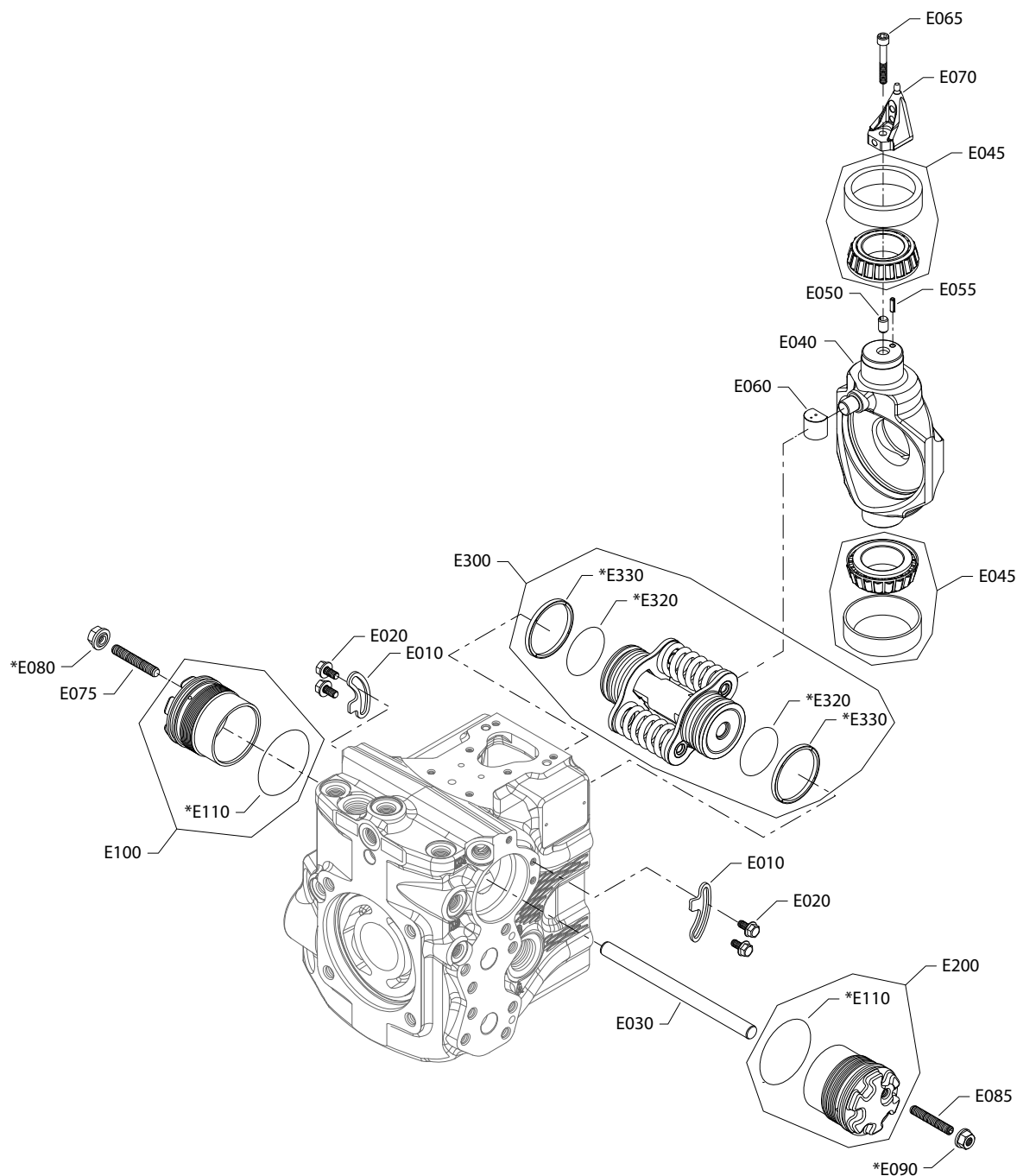
Order code: AU3

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	19-07		716860	Screw, M5x 12	6
D150	19-07		11227209	Control gasket	1
D250	19-07		505038	Screw, M6x45	6
D300	19-07		11036469	Dowel pin	2
D450	19-07		11003097	Magnet carrier	1
D610	19-07	21-12	11000467	Plug assembly (SB-2021-014 on page 116)	2
D611	21-13		11225703	O-ring	2
D612	21-13		11223708	Plug	2
D640	19-07		11197432	AC wiring harness	1
D655	19-07		11084827	Connector DTM 06-3S	1
D660	19-07		11084822	Connector DTM 06-6S	1
D665	19-07		11084827	Connector DTM 06-3S	2
D672	19-07		11151875	Protection	1
D674	19-07		716860	Screw, M5x 12	2
E400	19-07		11212891	Screw, M8x1.25	1
E405	19-07		141135	Screw, M5x30	1
E410	19-07		11212844	Magnet carrier spacer	1
E415	19-07		9004700-1508	Pin	1
G080	19-07		4800754	Lifting bracket	2
G085	19-07		508438	Screw, M6x12	2
QD25	19-07		140750	Proportional solenoid, 12V	2
QD26	19-07		11001952	O-ring	2
QD27	19-07		11004698	Coil kit, 12V, DEUTSCH connector	2
QD28	19-07		063172	O-ring	2
QD29	19-07		11004749	Coil nut	2
QD30	19-07		11027883	Cap	2
QD100	19-07		11232794	Automotive control kit, 12V	1

Displacement limitation

MP1 38/45 displacement limitation B

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Displacement limitation

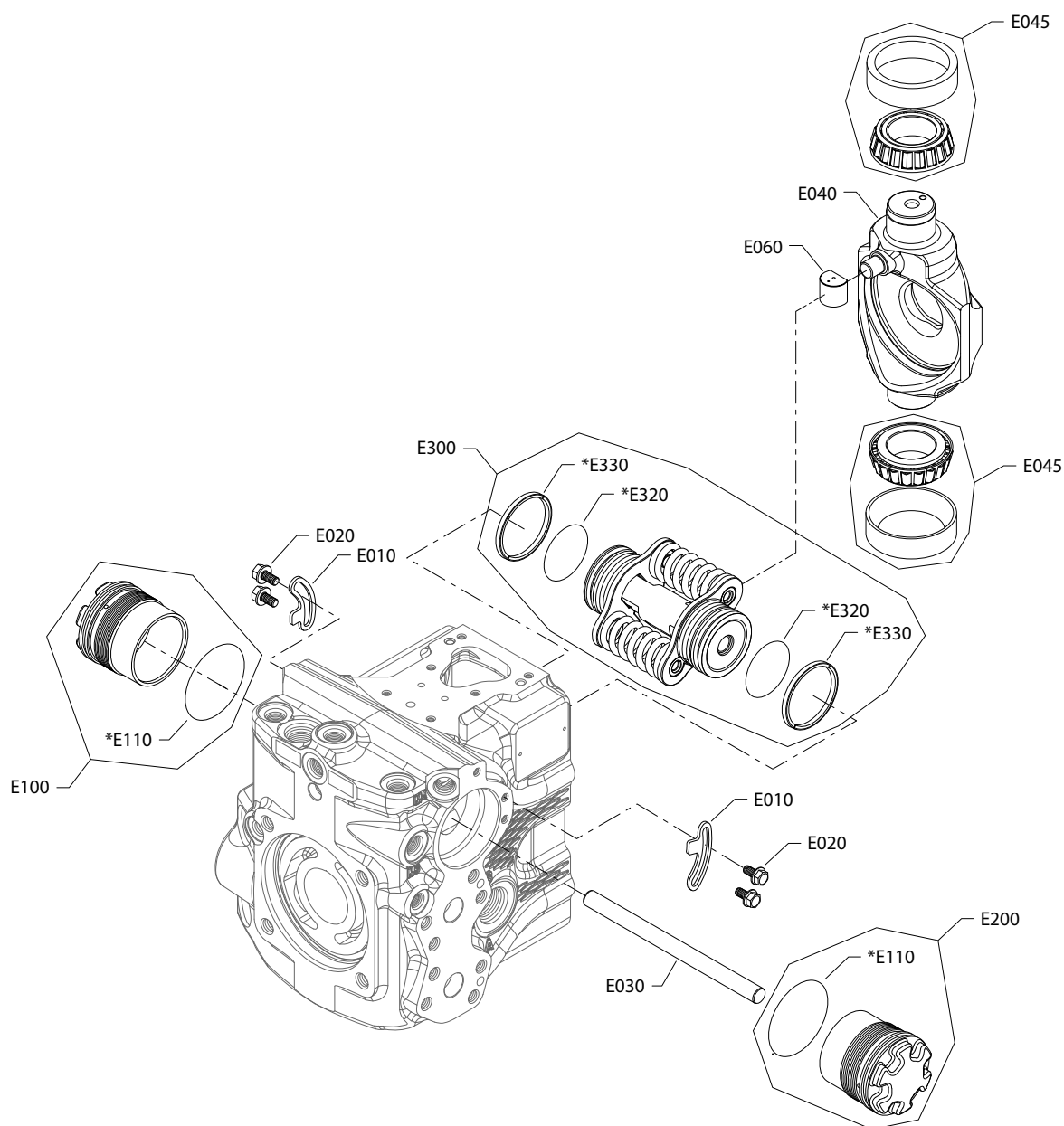
Order code: B

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E010	16-32		11157170	Locking plate	2
E020	16-32		508438	Screw, M6 x 12	4
E030	16-32		11150891	Servo piston guide rod	1
E040	16-32		11150343	Swashplate	1
E045	16-32		4800470	Roller bearing	2
E050	16-32		11160523	Bushing	1
E055	16-32		9004700-1508	Slotted pin	1
E060	16-32		11152843	Slider block	1
E065	16-32		508994	Screw, M6 x 35	1
E070	16-32		11195668	Swashplate feedback link (SB-2018-040 on page 113)	1
E075	16-32		528711	Set screw, M8 x 45	1
E080	16-32		505412 (9003509-0008)	Seal nut, M8	1
E085	16-32		528711	Set screw, M8 x 45	1
E090	16-32		505412 (9003509-0008)	Seal nut, M8	1
E100	16-32		11165019	Servo cylinder assembly	1
E110	16-32		5000709	O-ring	2
E200	16-32		11165019	Servo cylinder assembly	1
E300	16-32		11164461	Servo piston assembly	1
E320	16-32		9004100-2230	O-ring	2
E330	16-32		11164998	Piston ring	2

Displacement limitation

MP1 38/45 displacement limitation C

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Displacement limitation

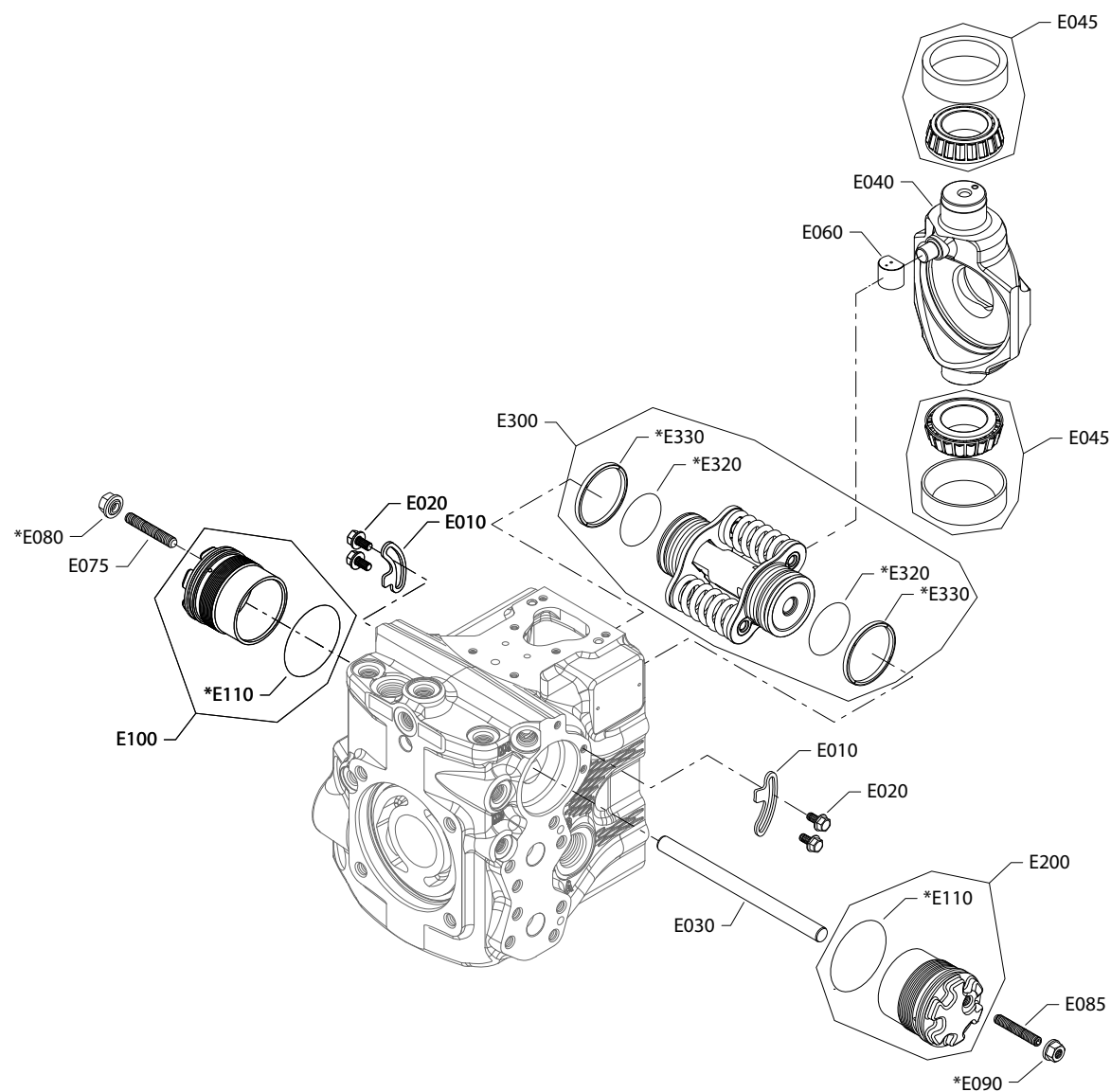
Order code: C

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E010	16-32		11157170	Locking plate	2
E020	16-32		508438	Screw, M6 x 12	4
E030	16-32		11150891	Servo piston guide rod	1
E040	16-32		11212843	Swashplate	1
E045	16-32		4800470	Roller bearing	2
E060	16-32		11152843	Slider block	1
E100	16-32		11165017	Servo cylinder assembly	1
E110	16-32		5000709	O-ring	2
E200	16-32		11165017	Servo cylinder assembly	1
E300	16-32		11164465	Servo piston assembly, nested springs	1
E320	16-32		9004100-2230	O-ring	2
E330	16-32		11164998	Piston ring	2

Displacement limitation

MP1 38/45 displacement limitation D

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Displacement limitation

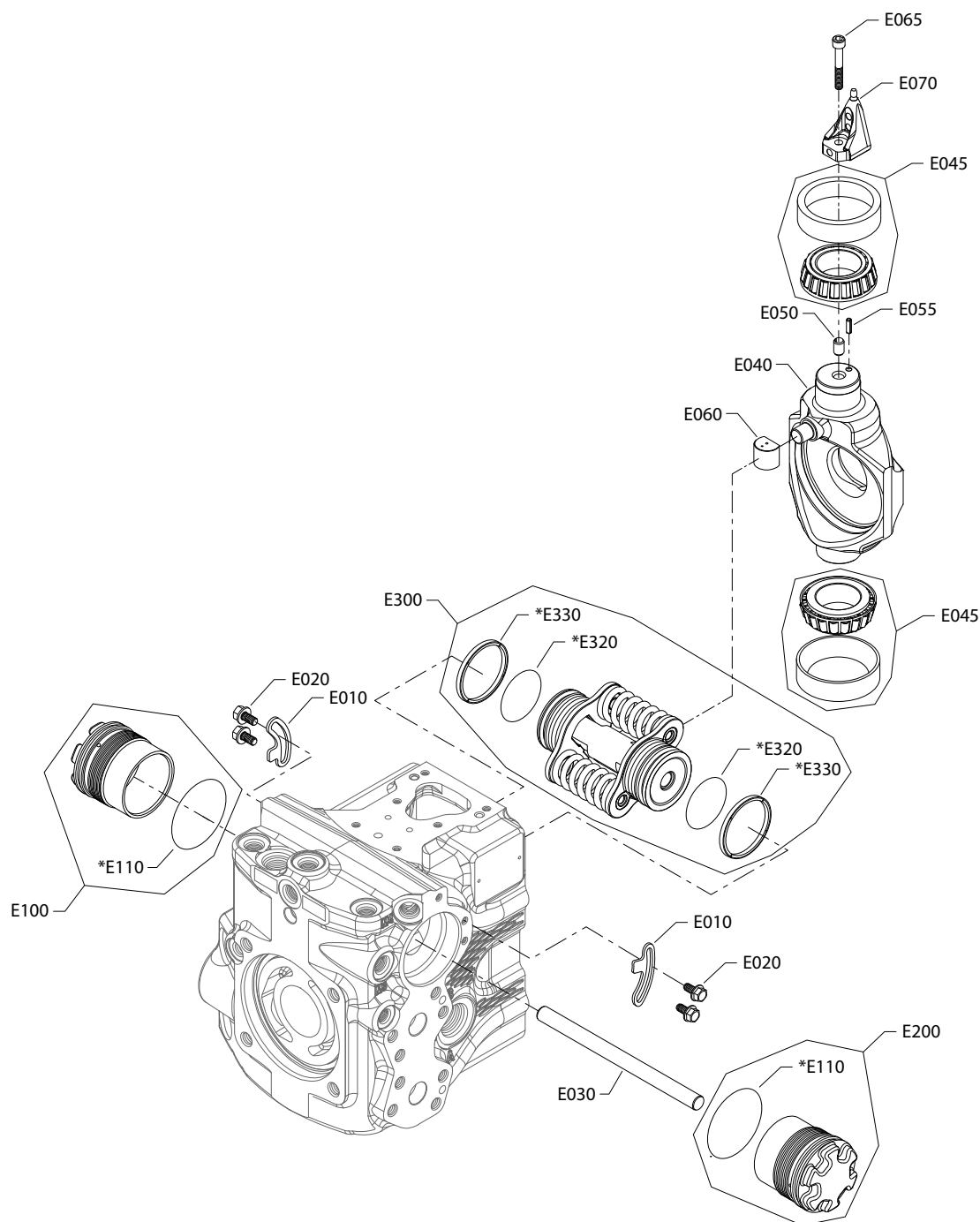
Order code: D

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E010	16-32		11157170	Locking plate	2
E020	16-32		508438	Screw, M6 x 12	4
E030	16-32		11150891	Servo piston guide rod	1
E040	16-32		11212843	Swashplate	1
E045	16-32		4800470	Roller bearing	2
E060	16-32		11152843	Slider block	1
E075	16-32		528711	Set screw, M8 x 45	1
E080	16-32		505412 (9003509-0008)	Seal nut, M8	1
E085	16-32		528711	Set screw, M8 x 45	1
E090	16-32		505412 (9003509-0008)	Seal nut, M8	1
E100	16-32		11165019	Servo cylinder assembly	1
E110	16-32		5000709	O-ring	2
E200	16-32		11165019	Servo cylinder assembly	1
E300	16-32		11164465	Servo piston assembly, nested springs	1
E320	16-32		9004100-2230	O-ring	2
E330	16-32		11164998	Piston ring	2

Displacement limitation

MP1 38/45 displacement limitation N

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Displacement limitation

Order code: N

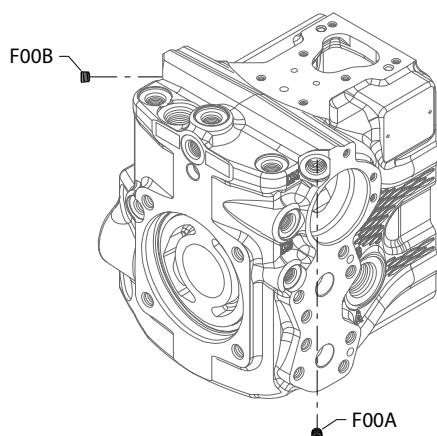
Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E010	16-32		11157170	Locking plate	2
E020	16-32		508438	Screw, M6 x 12	4
E030	16-32		11150891	Servo piston guide rod	1
E040	16-32		11150343	Swashplate	1
E045	16-32		4800470	Roller bearing	2
E050	16-32		11160523	Bushing	1
E055	16-32		9004700-1508	Slotted pin	1
E060	16-32		11152843	Slider block	1
E065	16-32		508994	Screw, M6 x 35	1
E070	16-32		11195668	Swashplate feedback link (SB-2018-040 on page 113)	1
E100	16-32		11165017	Servo cylinder assembly	1
E110	16-32		5000709	O-ring	2
E200	16-32		11165017	Servo cylinder assembly	1
E300	16-32		11164461	Servo piston assembly	1
E320	16-32		9004100-2230	O-ring	2
E330	16-32		11164998	Piston ring	2

Orifice

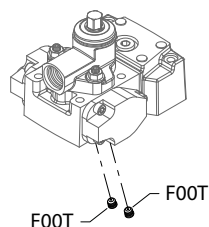
MP1 orifice C1-E8

Parts configuration

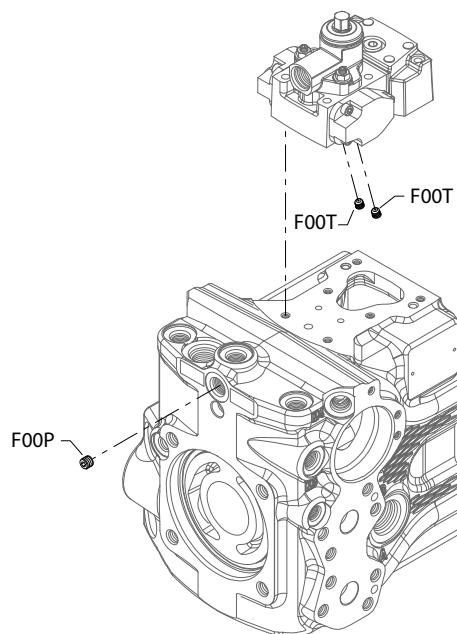
(C1, C2, C4)



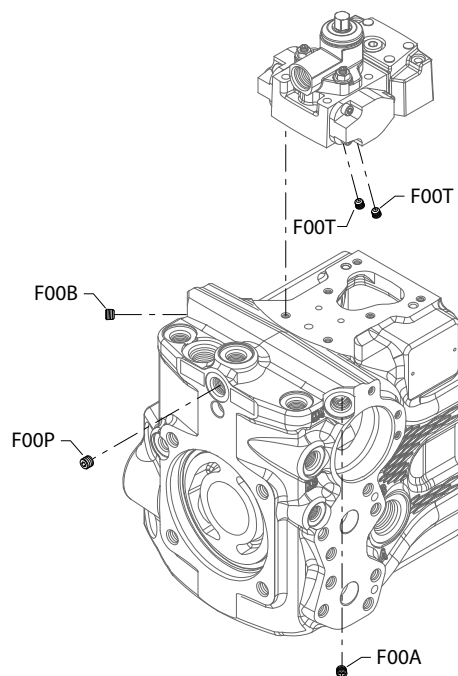
(C6, C7)



(C8, C9, D1, D2, D3, D6)



(D4, D5, E2, E3, E8)



Generic housings and controls used to show part location only.

Orifice

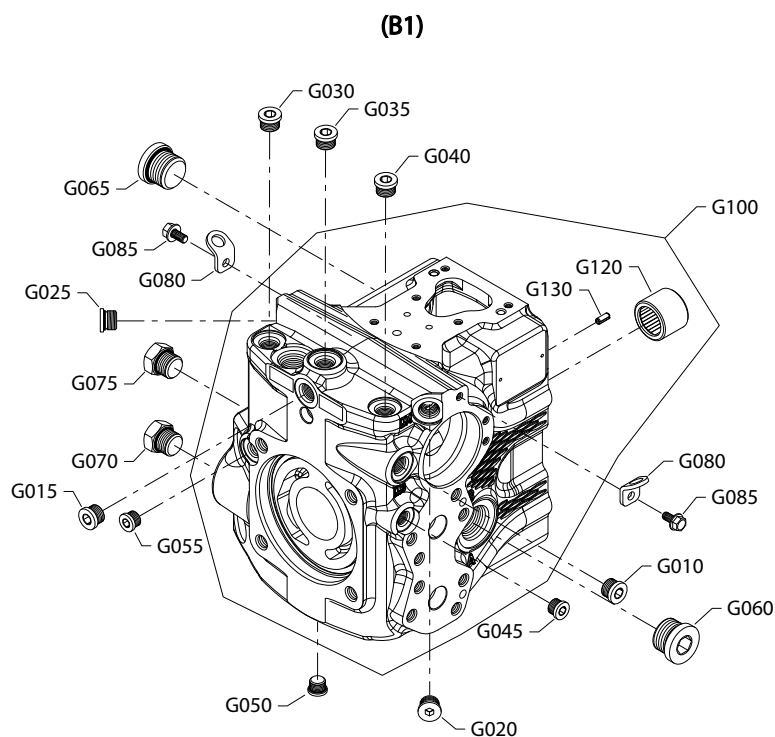
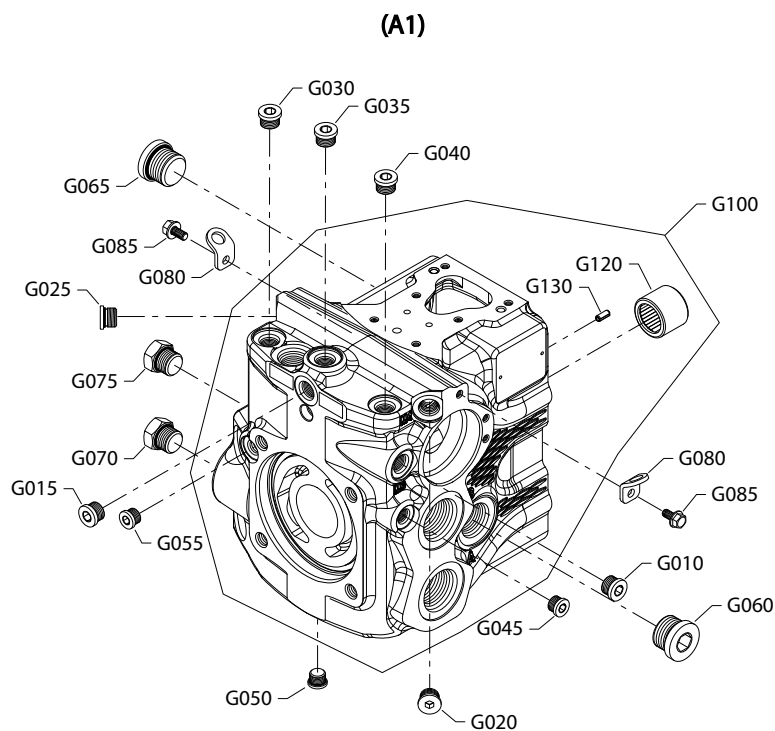
Order code: orifice C1-E8 parts

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	F00A	16-32		11182692	Orifice, 0.8 mm	1
	F00B	16-32		11182692	Orifice, 0.8 mm	1
C2	F00A	16-32		11167433	Orifice, 1.3 mm	1
	F00B	16-32		11167433	Orifice, 1.3 mm	1
C3	None					
C4	F00A	16-32		11167421	Orifice, 1.0 mm	1
	F00B	16-32		11167421	Orifice, 1.0 mm	1
C6	F00T	16-32		11151734	Orifice, 1.0 mm, M6	2
C7	F00T	16-32		140754	Orifice, 1.3 mm, M6	2
C8	F00P	16-32		11177220	Orifice, 0.8 mm, 1/8-27	1
	F00T	16-32		11151733	Orifice, 0.6 mm, M6	2
C9	F00P	16-32		11160290	Orifice, 0.8 mm, 1/8-27	1
	F00T	16-32		11151733	Orifice, 0.6 mm, M6	2
D1	F00P	16-32		11160290	Orifice, 1.0 mm, 1/8-27	1
	F00T	16-32		140611	Orifice, 0.8 mm, M6	2
D2	F00P	16-32		11160291	Orifice, 1.3 mm, 1/8-27	1
	F00T	16-32		140611	Orifice, 0.8 mm, M6	2
D3	F00P	16-32		11160291	Orifice, 1.3 mm, 1/8-27	1
	F00T	16-32		11151734	Orifice, 1.0 mm, M6	2
D4	F00A	16-32		11167433	Orifice, 1.3 mm	1
	F00B	16-32		11167433	Orifice, 1.3 mm	1
	F00P	16-32		11160291	Orifice, 1.3 mm, 1/8-27	1
	F00T	16-32		11151734	Orifice, 1.0 mm, M6	2
D5	F00A	16-32		11182692	Orifice, 0.8 mm	1
	F00B	16-32		11182692	Orifice, 0.8 mm	1
	F00P	16-32		11176799	Orifice, 0.6 mm, 1/8-27	1
	F00T	16-32		11151733	Orifice, 0.6 mm, M6	2
D6	F00P	20-31		11176799	Orifice, 0.6 mm, 1/8-27	1
	F00T	20-31		11151733	Orifice, 0.6 mm, M6	2
E2	F00A	17-47		11182692	Orifice, 0.8 mm	1
	F00B	17-47		11182692	Orifice, 0.8 mm	1
	F00P	17-47		11160290	Orifice, 1.0 mm, 1/8-27	1
	F00T	17-47		140611	Orifice, 0.8 mm, M6	2
E3	F00A	21-03		11182692	Orifice, 0.8 mm	1
	F00B	21-03		11192692	Orifice, 0.8 mm	1
	F00P	21-03		11177220	Orifice, 0.8 mm, 1/8-27	1
	F00T	21-03		140611	Orifice, 0.8 mm, M6	2
E8	F00A	24-07		11182692	Orifice, 0.8 mm	1
	F00B	24-07		11182692	Orifice, 0.8 mm	1
	F00P	24-07		11176799	Orifice, 0.6 mm, 1/8-27	1
	F00T	24-07		140611	Orifice, 0.8 mm, M6	2

Porting type

MP1 38/45 porting type A1, B1

Parts configuration



E103 447E

Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G010	16-32		140644 (9005110-5600)	Plug assembly	1
G015	16-32		140644 (9005110-5600)	Plug assembly	1
G020	16-32		140644 (9005110-5600)	Plug assembly	1
G025	16-32		140644 (9005110-5600)	Plug assembly	1
G030	16-32		140644 (9005110-5600)	Plug assembly	1
G035	16-32		140644 (9005110-5600)	Plug assembly	1
G040	16-32		140644 (9005110-5600)	Plug assembly	1
G045	16-32		9005110-4400	Plug assembly	1
G050	16-32		9005110-4400	Plug assembly	1
G055	16-32		9005110-4400	Plug assembly	1
G060	16-32		664524 (9005110-9000)	Plug assembly	1
G065	16-32		664524 (9005110-9000)	Plug assembly	1
G070	16-32		001529 (9005100-7500)	Plug assembly	1
G075	16-32		001529 (9005100-7500)	Plug assembly	1
G080	16-32		4800754	Lifting bracket	2
G085	16-32		508438	Screw, M6 x 12	2
G120	16-32		9001465-0015	Needle bearing	1
G130	16-32		9004700-1907	Slotted pin	1

Order code: A1

G100	16-32		11229275	Housing assembly	1
------	-------	--	----------	------------------	---

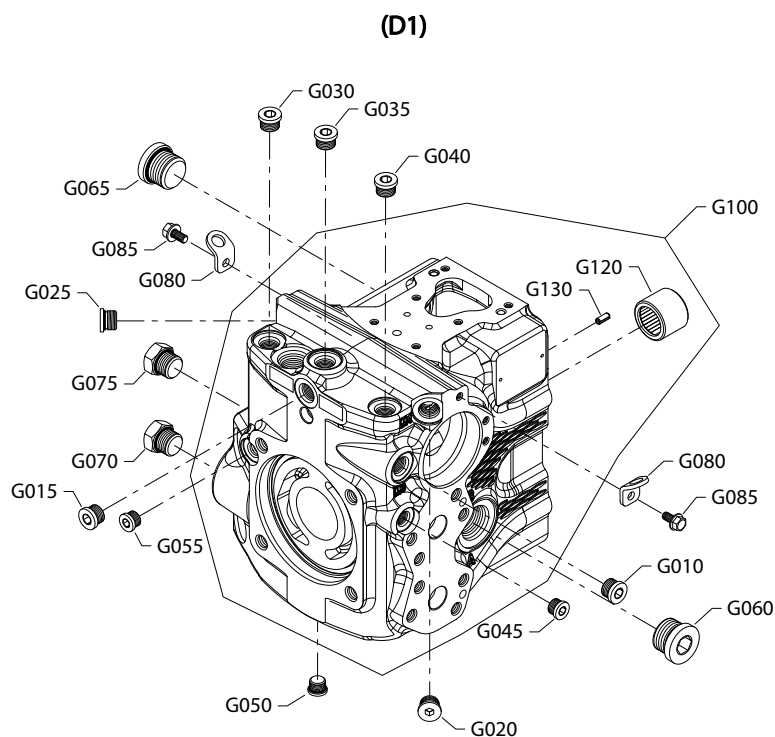
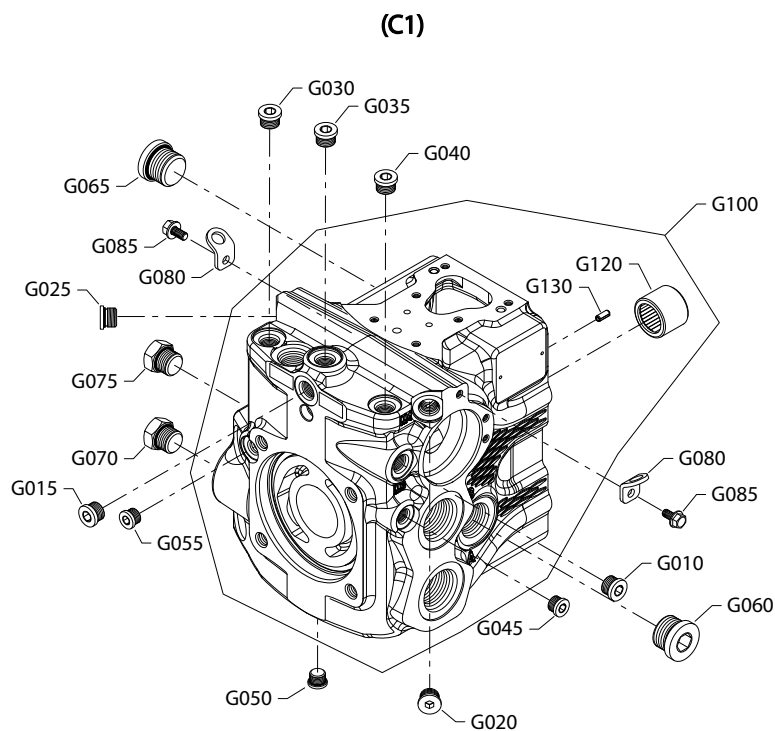
Order code: B1

G100	16-32		11229276	Housing assembly	1
------	-------	--	----------	------------------	---

Porting type

MP1 38/45 porting type C1, D1

Parts configuration



E103 447E.B

Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G010	16-32		5000438	Plug assembly, M14	1
G015	16-32		5000438	Plug assembly, M14	1
G020	16-32		5000438	Plug assembly, M14	1
G025	16-32		5000438	Plug assembly, M14	1
G030	16-32		5000438	Plug assembly, M14	1
G035	16-32		5000438	Plug assembly, M14	1
G040	16-32		5000438	Plug assembly, M14	1
G045	16-32		5000571	Plug assembly, M10	1
G050	16-32		5000571	Plug assembly, M10	1
G055	16-32		5000571	Plug assembly, M10	1
G060	16-32		11134927	Plug assembly, M27	1
G065	16-32		11134927	Plug assembly, M27	1
G070	16-32		11164223	Plug assembly, M18	1
G075	16-32		11164223	Plug assembly, M18	1
G080	16-32		4800754	Lifting bracket	2
G085	16-32		508438	Screw, M6 x 12	2
G120	16-32		9001465-0015	Needle bearing	1
G130	16-32		9004700-1907	Slotted pin	1

Order code: C1

G100	16-32		11229277	Housing assembly, metric	1
------	-------	--	----------	--------------------------	---

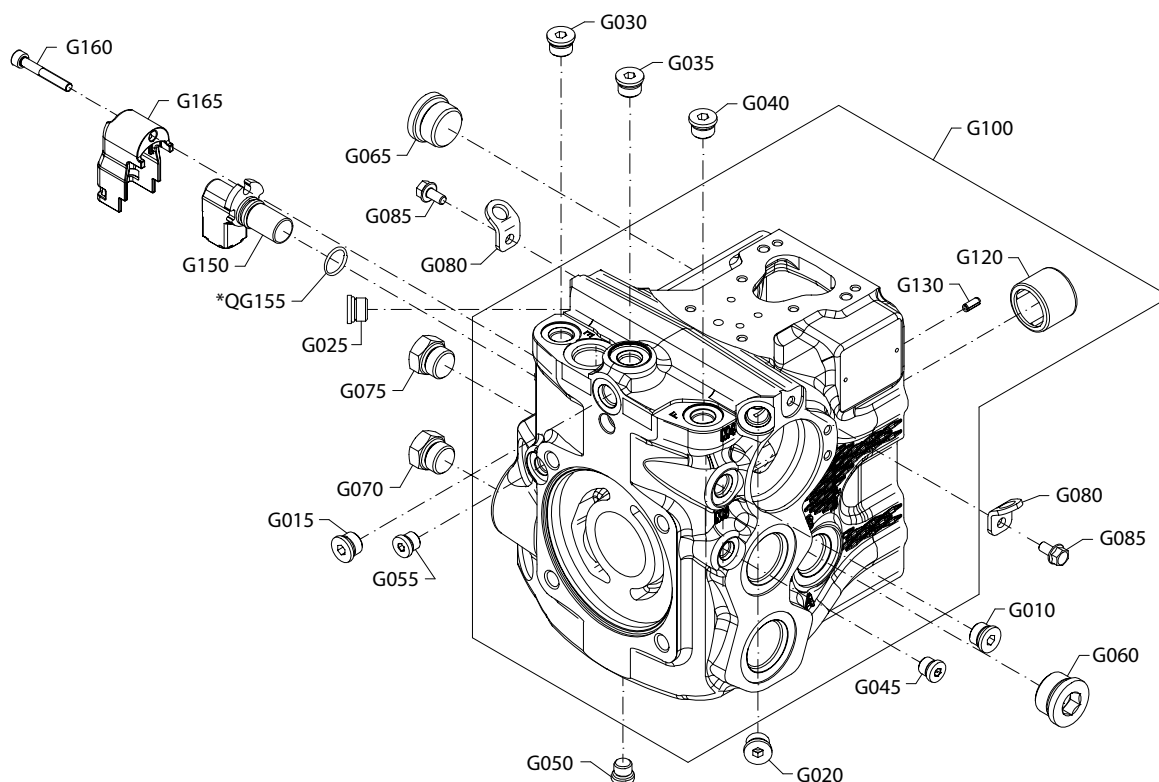
Order code: D1

G100	16-32		11229278	Housing assembly, metric	1
------	-------	--	----------	--------------------------	---

Porting type

MP1 38/45 porting type A4, C4

Parts configuration



* Included in overhaul seal kit Q210

Option A4 is for SAE configurations and C4 is for metric configurations. Please order accordingly.

Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G080	19-06		4800754	Lifting bracket	2
G085	19-06		508438	Hex screw	2
G120	19-06		9001465-0015	Needle bearing	1
G130	19-06		9004700-1907	Slotted pin	1
G150	19-06		149055	Speed and temperature sensor	1
G160	19-06		11158928	Screw	1
G165	19-06		11187156	Speed sensor protective cover	1
QG155	19-06		11013397	O-ring	1

Order code: A4

G010	19-06		9005110-5600	Plug assembly	1
G015	19-06		9005110-5600	Plug assembly	1
G020	19-06		9005110-5600	Plug assembly	1
G025	19-06		9005110-5600	Plug assembly	1
G030	19-06		9005110-5600	Plug assembly	1
G035	19-06		9005110-5600	Plug assembly	1
G040	19-06		9005110-5600	Plug assembly	1
G045	19-06		9005110-4400	Plug assembly	1
G050	19-06		9005110-4400	Plug assembly	1
G060	19-06		9005110-9000	Plug assembly	1
G065	19-06		9005110-9000	Plug assembly	1
G070	19-06		001529	Hex plug assembly	1
G075	19-06		001529	Hex plug assembly	1
G100	19-06		11224503	Housing assembly	1

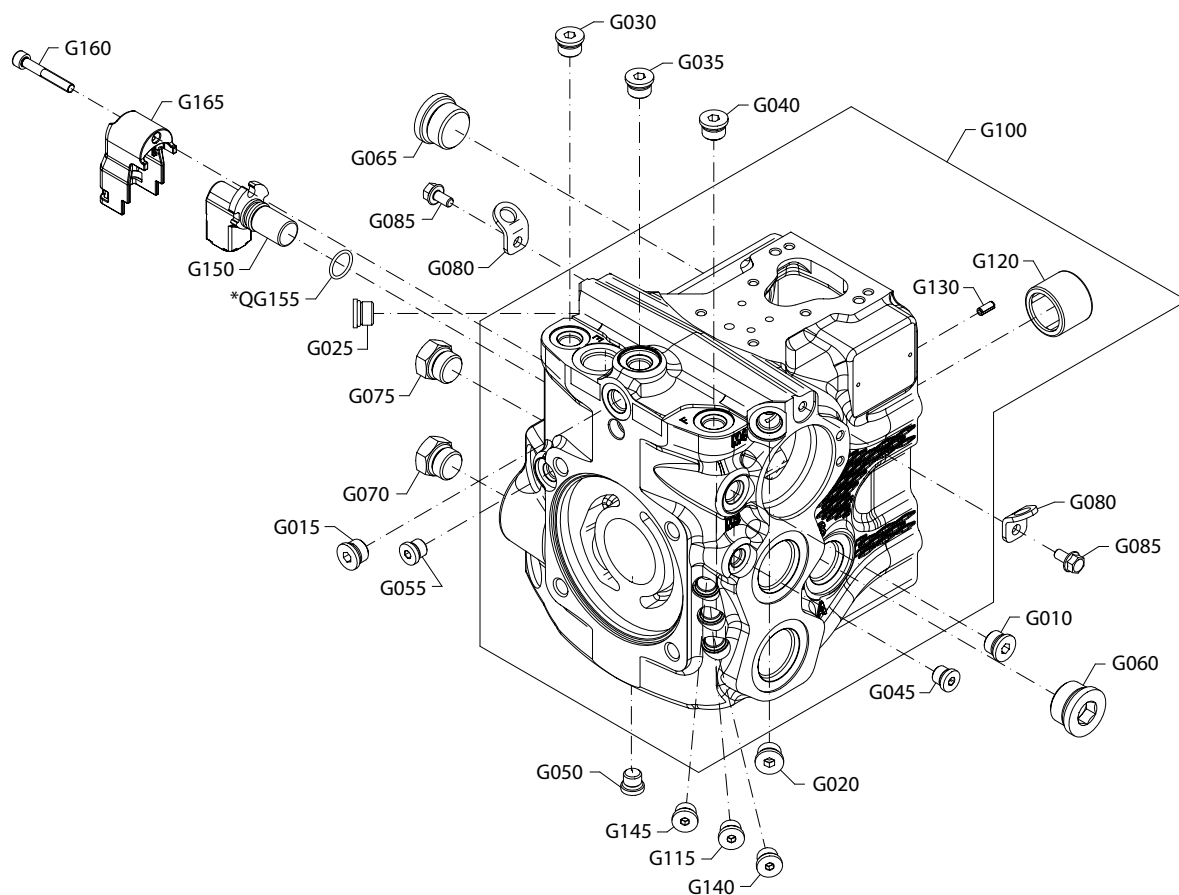
Order code: C4

G010	19-06		5000438	Plug assembly	1
G015	19-06		5000438	Plug assembly	1
G020	19-06		5000438	Plug assembly	1
G025	19-06		5000438	Plug assembly	1
G030	19-06		5000438	Plug assembly	1
G035	19-06		5000438	Plug assembly	1
G040	19-06		5000438	Plug assembly	1
G045	19-06		5000571	Plug assembly	1
G050	19-06		5000571	Plug assembly	1
G060	19-06		11134927	Plug assembly	1
G065	19-06		11134927	Plug assembly	1
G070	19-06		11164223	Hex plug assembly	1
G075	19-06		11164223	Hex plug assembly	1
G100	19-06		11224509	Housing assembly	1

Porting type

MP1 38/45 porting type A5, C5

Parts configuration



* Included in overhaul seal kit Q210

Option A5 is for SAE configurations and C5 is for metric configurations. Please order accordingly.

Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G080	19-06		4800754	Lifting bracket	2
G085	19-06		508438	Hex screw	2
G115	19-06		9005110-5000	Plug assembly	1
G120	19-06		9001465-0015	Needle bearing	1
G130	19-06		9004700-1907	Slotted pin	1
G140	19-06		9005110-5000	Plug assembly	1
G145	19-06		9005110-5000	Plug assembly	1
G150	19-06		149055	Speed and temperature sensor	1
G160	19-06		11158928	Screw	1
G165	19-06		11187156	Speed sensor protective cover	1
QG155	19-06		11013397	O-ring	1

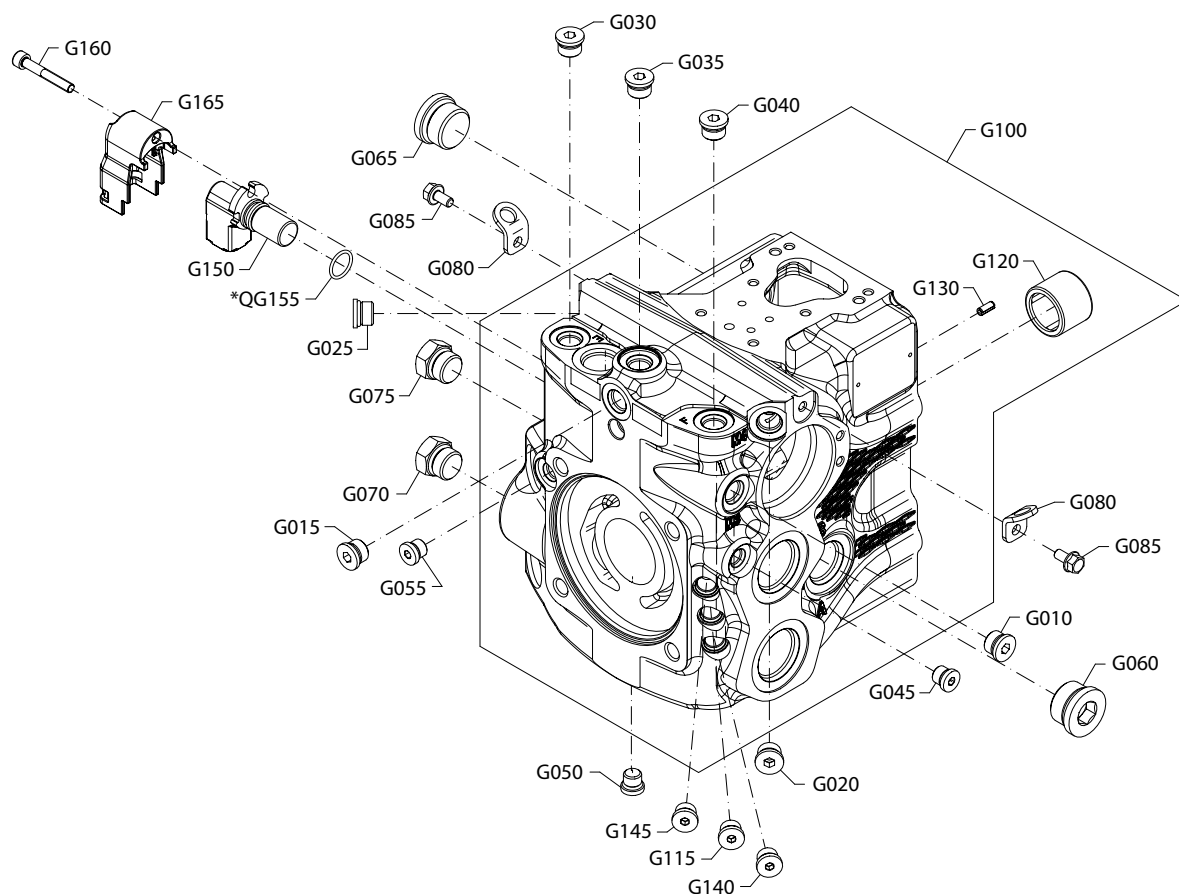
Order code: A5

G010	19-06		9005110-5600	Plug assembly	1
G015	19-06		9005110-5600	Plug assembly	1
G020	19-06		9005110-5600	Plug assembly	1
G025	19-06		9005110-5600	Plug assembly	1
G030	19-06		9005110-5600	Plug assembly	1
G035	19-06		9005110-5600	Plug assembly	1
G040	19-06		9005110-5600	Plug assembly	1
G045	19-06		9005110-4400	Plug assembly	1
G050	19-06		9005110-4400	Plug assembly	1
G055	19-06		9005110-4400	Plug assembly	1
G060	19-06		9005110-9000	Plug assembly	1
G065	19-06		9005110-9000	Plug assembly	1
G070	19-06		001529	Hex plug assembly	1
G075	19-06		001529	Hex plug assembly	1
G100	19-06		11224504	Housing assembly	1

[Part numbers continue to the next 2 pages.](#)

Porting type

Parts configuration



* Included in overhaul seal kit Q210

Option A5 is for SAE configurations and C5 is for metric configurations. Please order accordingly.

Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G080	19-06		4800754	Lifting bracket	2
G085	19-06		508438	Hex screw	2
G115	19-06		9005110-5000	Plug assembly	1
G120	19-06		9001465-0015	Needle bearing	1
G130	19-06		9004700-1907	Slotted pin	1
G140	19-06		9005110-5000	Plug assembly	1
G145	19-06		9005110-5000	Plug assembly	1
G150	19-06		149055	Speed and temperature sensor	1
G160	19-06		11158928	Screw	1
G165	19-06		11187156	Speed sensor protective cover	1
QG155	19-06		11013397	O-ring	1

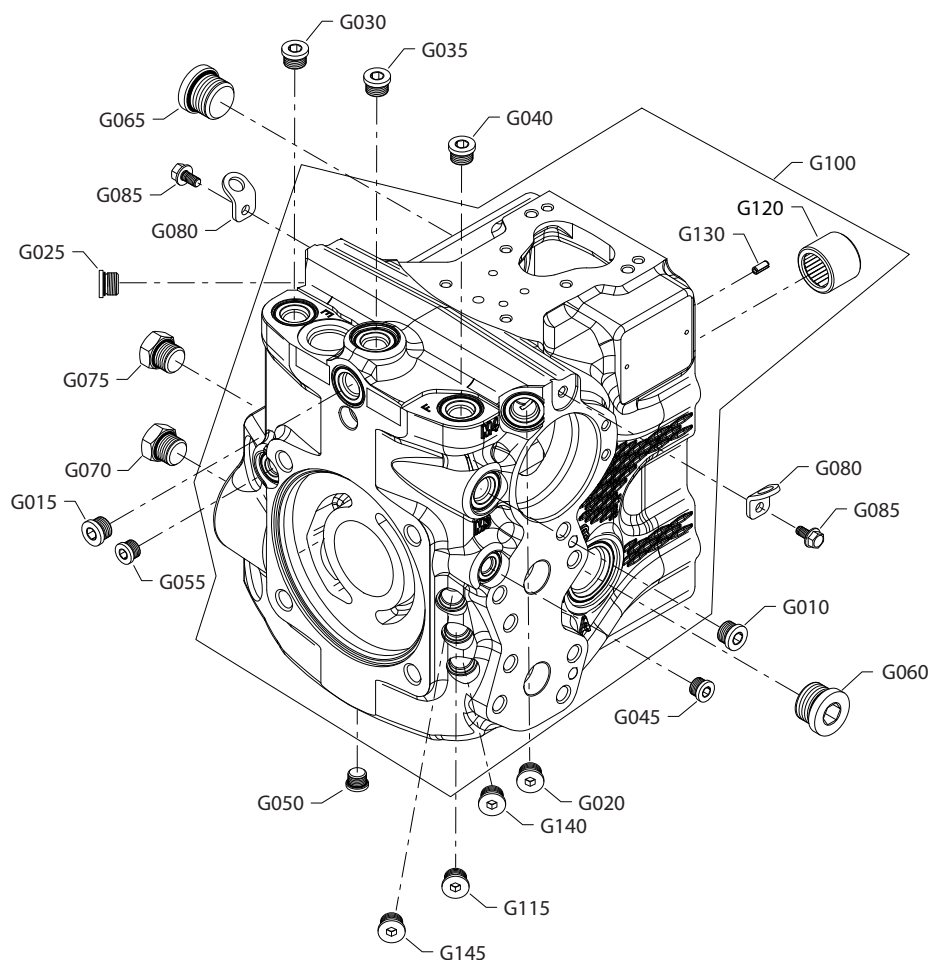
Order code: C5

G010	19-06		5000438	Plug assembly	1
G015	19-06		5000438	Plug assembly	1
G020	19-06		5000438	Plug assembly	1
G025	19-06		5000438	Plug assembly	1
G030	19-06		5000438	Plug assembly	1
G035	19-06		5000438	Plug assembly	1
G040	19-06		5000438	Plug assembly	1
G045	19-06		5000571	Plug assembly	1
G050	19-06		5000571	Plug assembly	1
G055	19-06		5000571	Plug assembly	1
G060	19-06		11134927	Plug assembly	1
G065	19-06		11134927	Plug assembly	1
G070	19-06		11164223	Hex plug assembly	1
G075	19-06		11164223	Hex plug assembly	1
G100	19-06		11224510	Housing assembly	1

Porting type

MP1 38/45 porting type B3, D3

Parts configuration



Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G080	19-03		4800754	Lifting bracket	2
G085	19-03		508438	Screw, M6 x 12	2
G115	19-03		500217 (9005110-5000)	Plug assembly	1
G120	19-03		9001465-0015	Needle bearing	1
G130	19-03		9004700-1907	Slotted pin	1
G140	19-03		500217 (9005110-5000)	Plug assembly	1
G145	19-03		500217 (9005110-5000)	Plug assembly	1

Order code: B3

G010	19-03		140644 (9005110-5600)	Plug assembly	1
G015	19-03		140644 (9005110-5600)	Plug assembly	1
G020	19-03		140644 (9005110-5600)	Plug assembly	1
G025	19-03		140644 (9005110-5600)	Plug assembly	1
G030	19-03		140644 (9005110-5600)	Plug assembly	1
G035	19-03		140644 (9005110-5600)	Plug assembly	1
G040	19-03		140644 (9005110-5600)	Plug assembly	1
G045	19-03		9005110-4400	Plug assembly	1
G050	19-03		9005110-4400	Plug assembly	1
G055	19-03		9005110-4400	Plug assembly	1
G060	19-03		664524 (9005110-9000)	Plug assembly	1
G065	19-03		664524 (9005110-9000)	Plug assembly	1
G070	19-03		001529 (9005100-7500)	Plug assembly	1
G075	19-03		001529 (9005100-7500)	Plug assembly	1
G100	19-03		11224505	Housing assembly	1

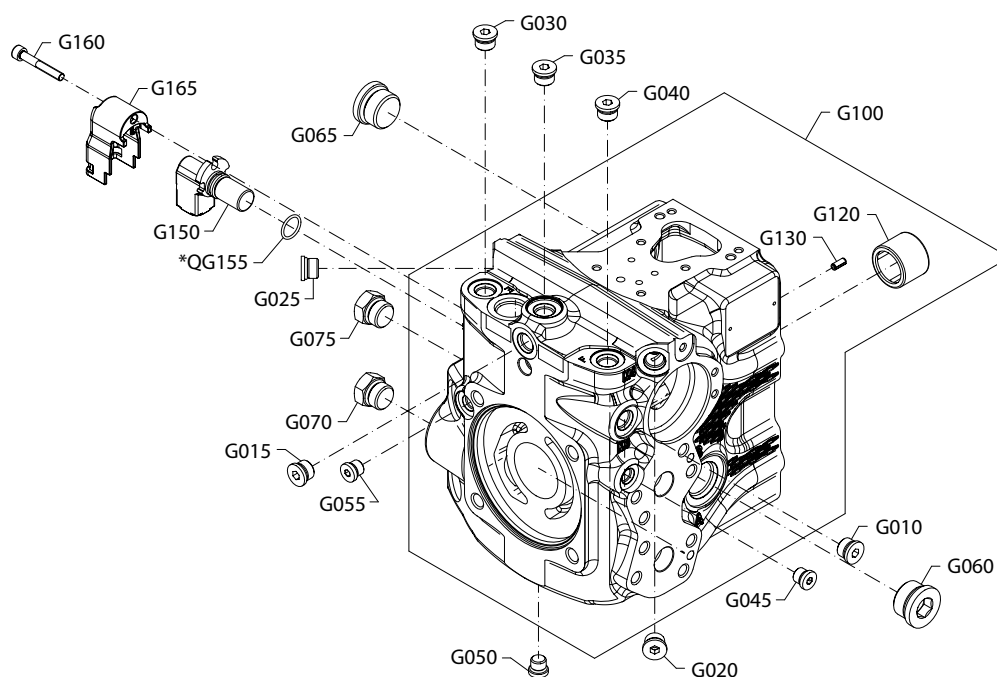
Order code: D3

G010	19-03		5000438	Plug assembly, M14	1
G015	19-03		5000438	Plug assembly, M14	1
G020	19-03		5000438	Plug assembly, M14	1
G025	19-03		5000438	Plug assembly, M14	1
G030	19-03		5000438	Plug assembly, M14	1
G035	19-03		5000438	Plug assembly, M14	1
G040	19-03		5000438	Plug assembly, M14	1
G045	19-03		5000571	Plug assembly, M10	1
G050	19-03		5000571	Plug assembly, M10	1
G055	19-03		5000571	Plug assembly, M10	1
G060	19-03		11134927	Plug assembly, M27	1
G065	19-03		11134927	Plug assembly, M27	1
G070	19-03		11164223	Plug assembly, M18	1
G075	19-03		11164223	Plug assembly, M18	1
G100	19-03		11224511	Housing assembly	1

Porting type

MP1 38/45 porting type B4, D4

Parts configuration



* Included in overhaul seal kit Q210

Porting type

Order code: B4

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G010	19-12		140644 (9005110-5600)	Plug assembly	1
G015	19-12		140644 (9005110-5600)	Plug assembly	1
G020	19-12		140644 (9005110-5600)	Plug assembly	1
G025	19-12		140644 (9005110-5600)	Plug assembly	1
G030	19-12		140644 (9005110-5600)	Plug assembly	1
G035	19-12		140644 (9005110-5600)	Plug assembly	1
G040	19-12		140644 (9005110-5600)	Plug assembly	1
G045	19-12		9005110-4400	Plug assembly	1
G050	19-12		9005110-4400	Plug assembly	1
G055	19-12		9005110-4400	Plug assembly	1
G060	19-12		664524 (9005110-9000)	Plug assembly	1
G065	19-12		664524 (9005110-9000)	Plug assembly	1
G070	19-12		001529 (9005100-7500)	Plug assembly	1
G075	19-12		001529 (9005100-7500)	Plug assembly	1
G100	19-12		11224506	Housing assembly	1
G120	19-12		9001465-0015	Needle bearing	1
G130	19-12		9004700-1907	Slotted pin	1
G150	19-12		149055	Speed sensor	1
G160	19-12		11158928	Screw, M6x 40	1
G165	19-12		11187156	Speed sensor cover	1

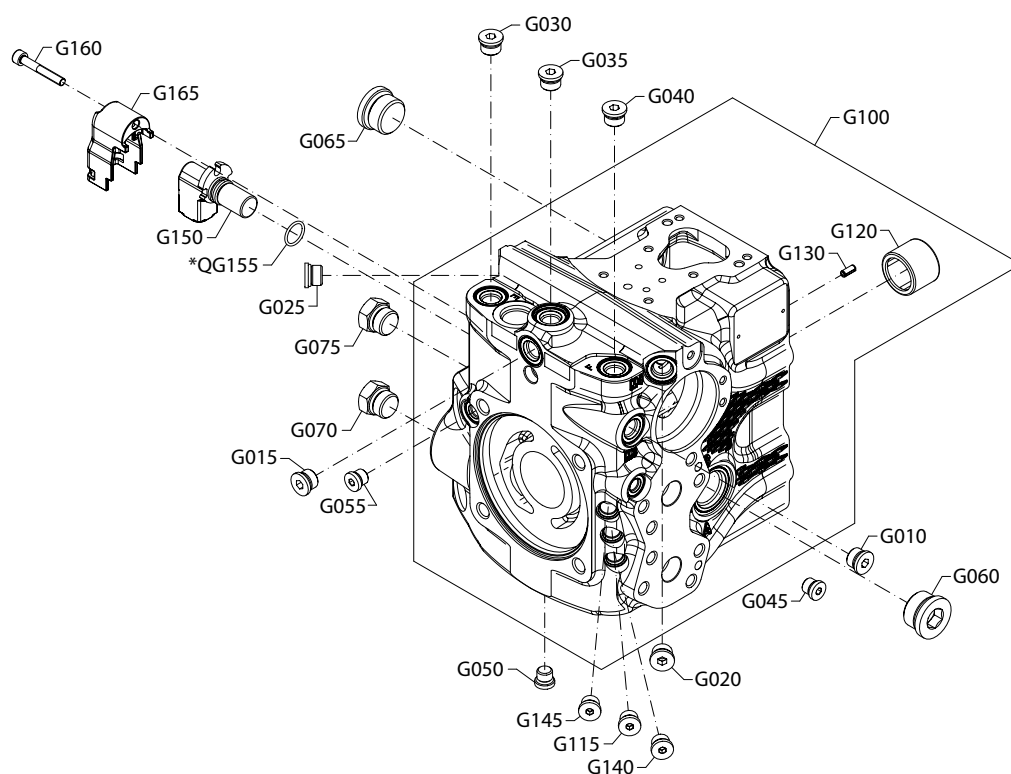
Order code: D4 (metric)

G010	19-12		5000438	Plug assembly, M14	1
G015	19-12		5000438	Plug assembly, M14	1
G020	19-12		5000438	Plug assembly, M14	1
G025	19-12		5000438	Plug assembly, M14	1
G030	19-12		5000438	Plug assembly, M14	1
G035	19-12		5000438	Plug assembly, M14	1
G040	19-12		5000438	Plug assembly, M14	1
G045	19-12		5000571	Plug assembly, M10	1
G050	19-12		5000571	Plug assembly, M10	1
G055	19-12		5000571	Plug assembly, M10	1
G060	19-12		11134927	Plug assembly, M27	1
G065	19-12		11134927	Plug assembly, M27	1
G070	19-12		11164223	Plug assembly, M18	1
G075	19-12		11164223	Plug assembly, M18	1
G100	19-12		11224513	Housing assembly	1
G120	19-12		9001465-0015	Needle bearing	1
G130	19-12		9004700-1907	Slotted pin	1
G150	19-12		149055	Speed sensor	1
G160	19-12		11158928	Screw, M6x40	1
G165	19-12		11187156	Speed sensor cover	1

Porting type

MP1 38/45 porting type B5, D5

Parts configuration



* Included in overhaul seal kit Q210

Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G115	19-12		500217 (9005110-5000)	Plug assembly	1
G120	19-12		9001465-0015	Needle bearing	1
G130	19-12		9004700-1907	Slotted pin	1
G140	19-12		500217 (9005110-5000)	Plug assembly	1
G145	19-12		500217 (9005110-5000)	Plug assembly	1
G150	19-12		149055	Speed sensor	1
G160	19-12		11158928	Screw, M6x40	1
G165	19-12		11187156	Speed sensor cover	1

Order code: B5

G010	19-12		140644 (9005110-5600)	Plug assembly	1
G015	19-12		140644 (9005110-5600)	Plug assembly	1
G020	19-12		140644 (9005110-5600)	Plug assembly	1
G025	19-12		140644 (9005110-5600)	Plug assembly	1
G030	19-12		140644 (9005110-5600)	Plug assembly	1
G035	19-12		140644 (9005110-5600)	Plug assembly	1
G040	19-12		140644 (9005110-5600)	Plug assembly	1
G045	19-12		9005110-4400	Plug assembly	1
G050	19-12		9005110-4400	Plug assembly	1
G055	19-12		9005110-4400	Plug assembly	1
G060	19-12		664524 (9005110-9000)	Plug assembly	1
G065	19-12		664524 (9005110-9000)	Plug assembly	1
G070	19-12		001529 (9005100-7500)	Plug assembly	1
G075	19-12		001529 (9005100-7500)	Plug assembly	1
G100	19-12		11224507	Housing assembly	1

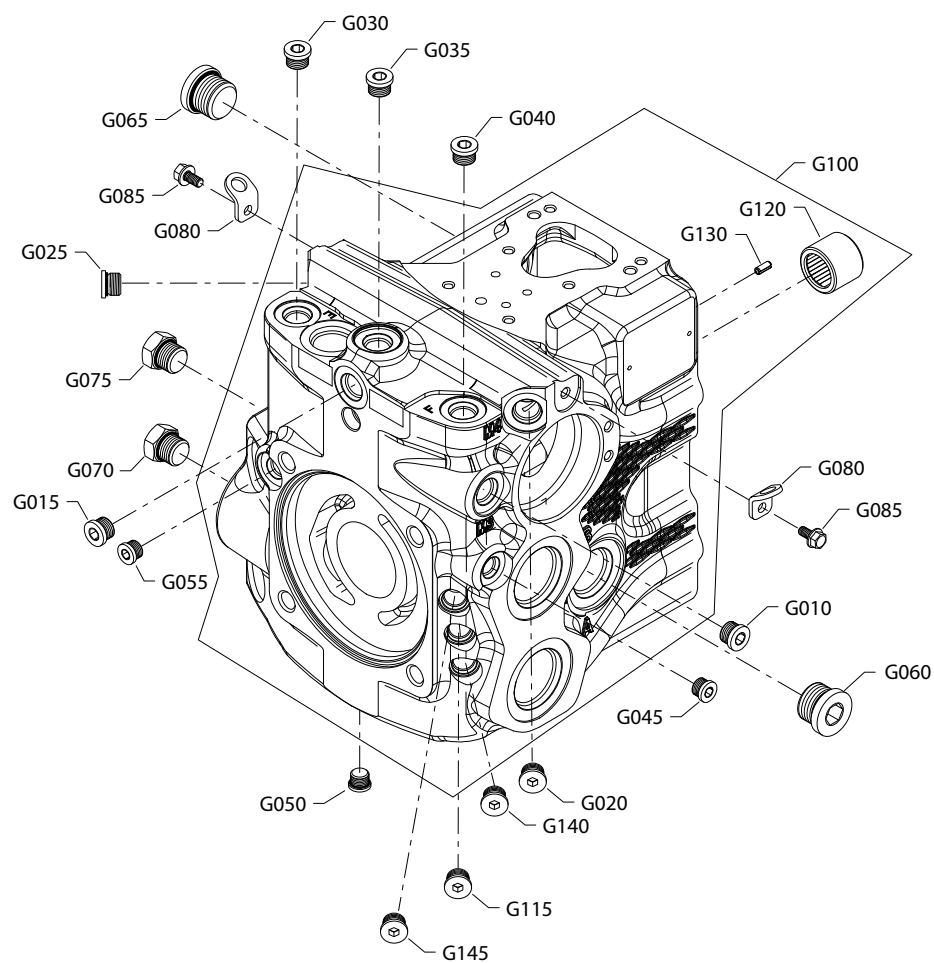
Order code: D5 (metric)

G010	19-12		5000438	Plug assembly, M14	1
G015	19-12		5000438	Plug assembly, M14	1
G020	19-12		5000438	Plug assembly, M14	1
G025	19-12		5000438	Plug assembly, M14	1
G030	19-12		5000438	Plug assembly, M14	1
G035	19-12		5000438	Plug assembly, M14	1
G040	19-12		5000438	Plug assembly, M14	1
G045	19-12		5000571	Plug assembly, M10	1
G050	19-12		5000571	Plug assembly, M10	1
G055	19-12		5000571	Plug assembly, M10	1
G060	19-12		11134927	Plug assembly, M27	1
G065	19-12		11134927	Plug assembly, M27	1
G070	19-12		11164223	Plug assembly, M18	1
G075	19-12		11164223	Plug assembly, M18	1
G100	19-12		11224514	Housing assembly	1

Porting type

MP1 38/45 porting type A3, C3

Parts configuration



Porting type

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G080	19-03		4800754	Lifting bracket	2
G085	19-03		508438	Screw, M6 x 12	2
G115	19-03		500217 (9005110-5000)	Plug assembly	1
G120	19-03		9001465-0015	Needle bearing	1
G130	19-03		9004700-1907	Slotted pin	1
G140	19-03		500217 (9005110-5000)	Plug assembly	1
G145	19-03		500217 (9005110-5000)	Plug assembly	1

Order code: A3

G010	19-03		140644 (9005110-5600)	Plug assembly	1
G015	19-03		140644 (9005110-5600)	Plug assembly	1
G020	19-03		140644 (9005110-5600)	Plug assembly	1
G025	19-03		140644 (9005110-5600)	Plug assembly	1
G030	19-03		140644 (9005110-5600)	Plug assembly	1
G035	19-03		140644 (9005110-5600)	Plug assembly	1
G040	19-03		140644 (9005110-5600)	Plug assembly	1
G045	19-03		9005110-4400	Plug assembly	1
G050	19-03		9005110-4400	Plug assembly	1
G055	19-03		9005110-4400	Plug assembly	1
G060	19-03		664524 (9005110-9000)	Plug assembly	1
G065	19-03		664524 (9005110-9000)	Plug assembly	1
G070	19-03		001529 (9005100-7500)	Plug assembly	1
G075	19-03		001529 (9005100-7500)	Plug assembly	1
G100	19-03		11224502	Housing assembly	1

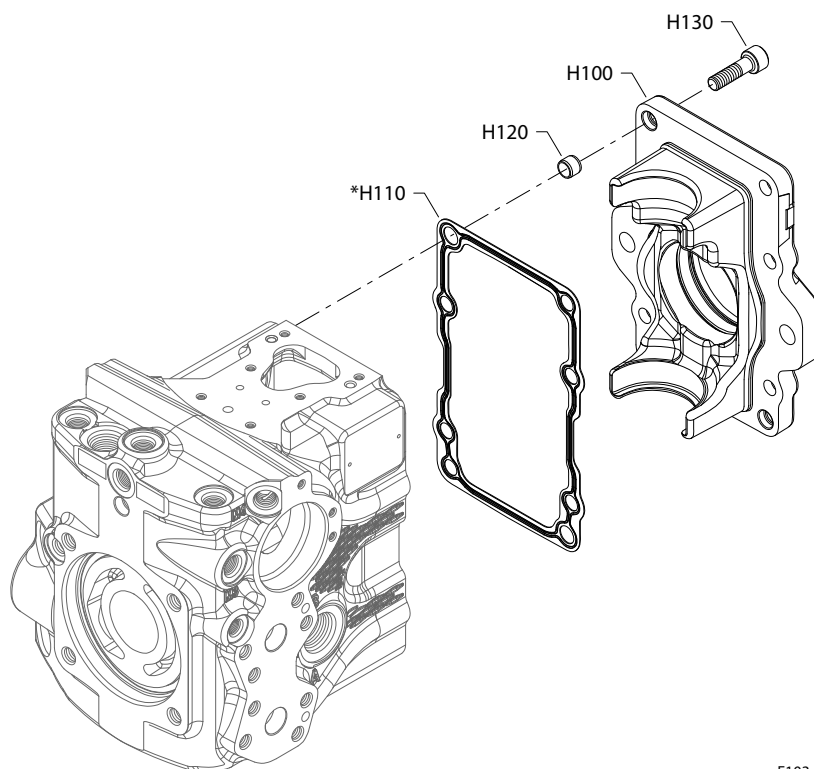
Order code: C3

G010	19-03		5000438	Plug assembly, M14	1
G015	19-03		5000438	Plug assembly, M14	1
G020	19-03		5000438	Plug assembly, M14	1
G025	19-03		5000438	Plug assembly, M14	1
G030	19-03		5000438	Plug assembly, M14	1
G035	19-03		5000438	Plug assembly, M14	1
G040	19-03		5000438	Plug assembly, M14	1
G045	19-03		5000571	Plug assembly, M10	1
G050	19-03		5000571	Plug assembly, M10	1
G055	19-03		5000571	Plug assembly, M10	1
G060	19-03		11134927	Plug assembly, M27	1
G065	19-03		11134927	Plug assembly, M27	1
G070	19-03		11164223	Plug assembly, M18	1
G075	19-03		11164223	Plug assembly, M18	1
G100	19-03		11224508	Housing assembly	1

Mounting flange

MP1 38/45 mounting flange F

Parts configuration



E103 678

* Included in overhaul seal kit Q210

Mounting flange

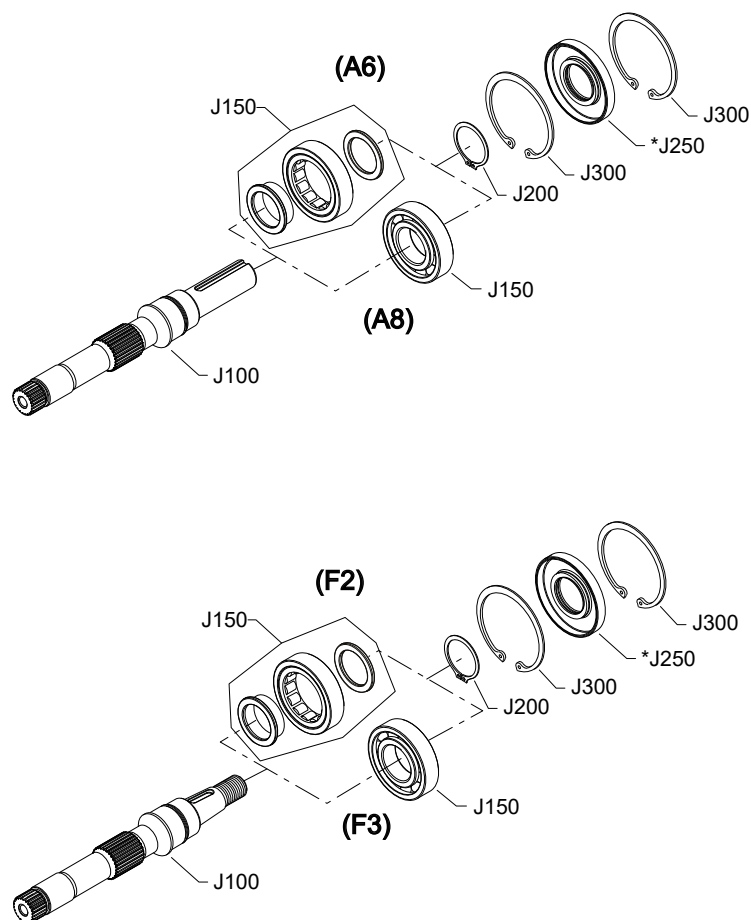
Order code: F

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
H100	16-32		11150146	Front cover	1
H110	16-32		11157168	Front cover gasket	1
H120	16-32		4400090	Hollow dowel locator	2
H130	16-32		11158929	Screw, M10 x 35	8

Shaft

MP1 38/45 shaft A6-F2

Parts configuration



* Included in overhaul seal kit Q210

Shaft

Order code: A6

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
J100	16-32		11150730	Shaft, straight key	1
J150	16-32		357616	Roller bearing	1
J200	16-32		9006300-0137	Retaining ring	1
J250	16-32		11103135	Lip seal	1
J300	16-32		9006200-0281	Retaining ring	2

Order code: A8

J100	16-32		11150730	Shaft, straight key	1
J150	16-32		11060400	Ball bearing	1
J200	16-32		9006300-0137	Retaining ring	1
J250	16-32		11103135	Lip seal	1
J300	16-32		9006200-0281	Retaining ring	2

Order code: F2

J100	16-32		11169590	Shaft, tapered	1
J150	16-32		11060400	Ball bearing	1
J200	16-32		9006300-0137	Retaining ring	1
J250	16-32		11103135	Lip seal	1
J300	16-32		9006200-0281	Retaining ring	2

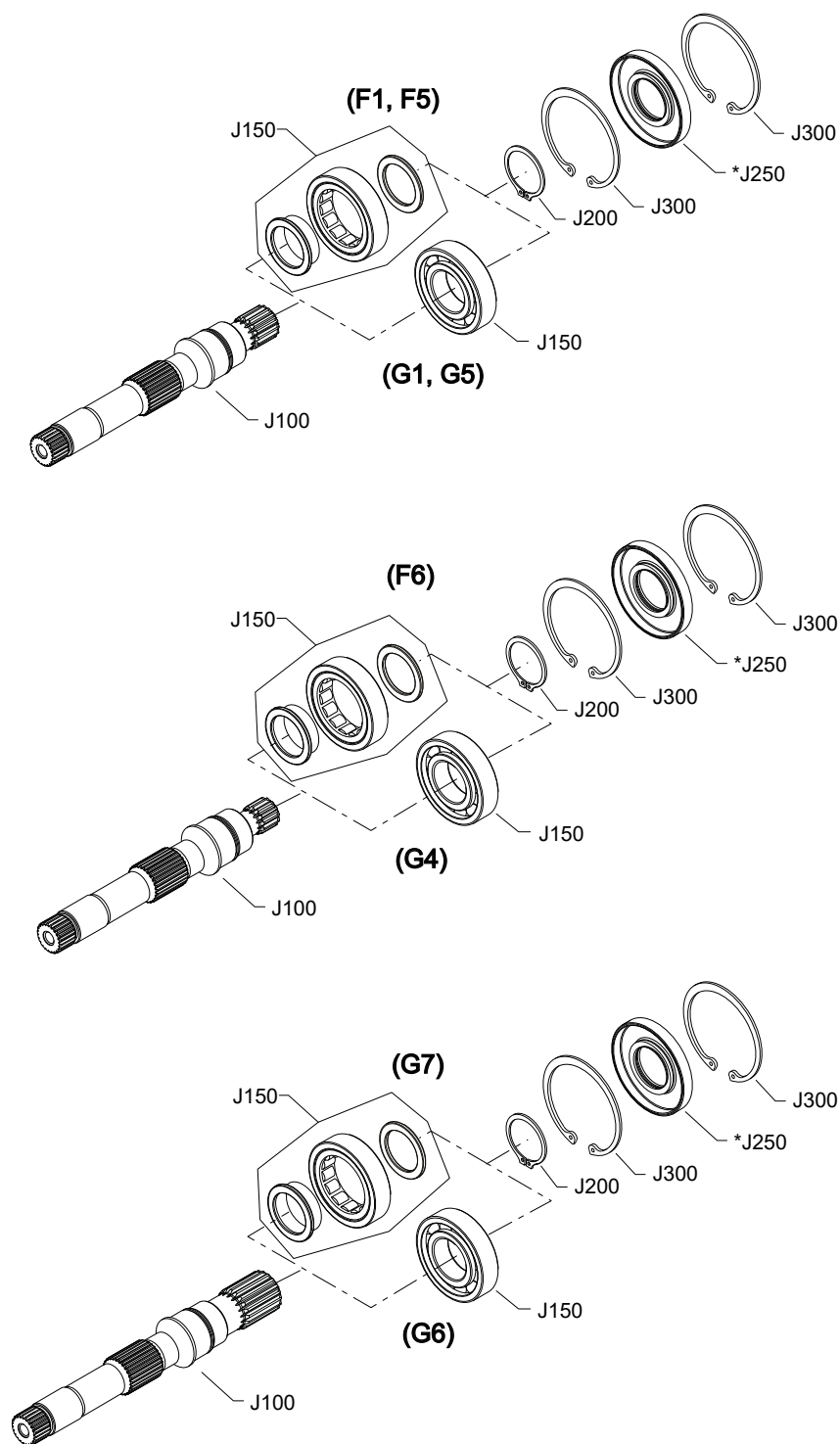
Order code: F3

J100	16-32		11169590	Shaft, tapered	1
J150	16-32		357616	Roller bearing	1
J200	16-32		9006300-0137	Retaining ring	1
J250	16-32		11103135	Lip seal	1
J300	16-32		9006200-0281	Retaining ring	2

Shaft

MP1 38/45 shaft F1-G7

Parts configuration



* Included in overhaul seal kit Q210

Shaft

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
J200	16-32		9006300-0137	Retaining ring	1
J250	16-32		11103135	Lip seal	1
J300	16-32		9006200-0281	Retaining ring	2

Order code: F1

J100	18-12		11212924	Shaft, 14 teeth	1
J150	18-12		357616	Roller bearing	1

Order code: F5

J100	16-32		11150728	Shaft, 15 tooth	1
J150	16-32		357616	Roller bearing	1

Order code: F6

J100	16-32		11150727	Shaft, 13 tooth	1
J150	16-32		357616	Roller bearing	1

Order code: G1

J100	18-12		11212924	Shaft, 14 teeth	1
J150	18-12		11060400	Ball bearing	1

Order code: G5

J100	16-32		11150728	Shaft, 15 tooth	1
J150	16-32		11060400	Ball bearing	1

Order code: G6

J100	16-32		11169483	Shaft, 19 tooth	1
J150	16-32		11060400	Ball bearing	1

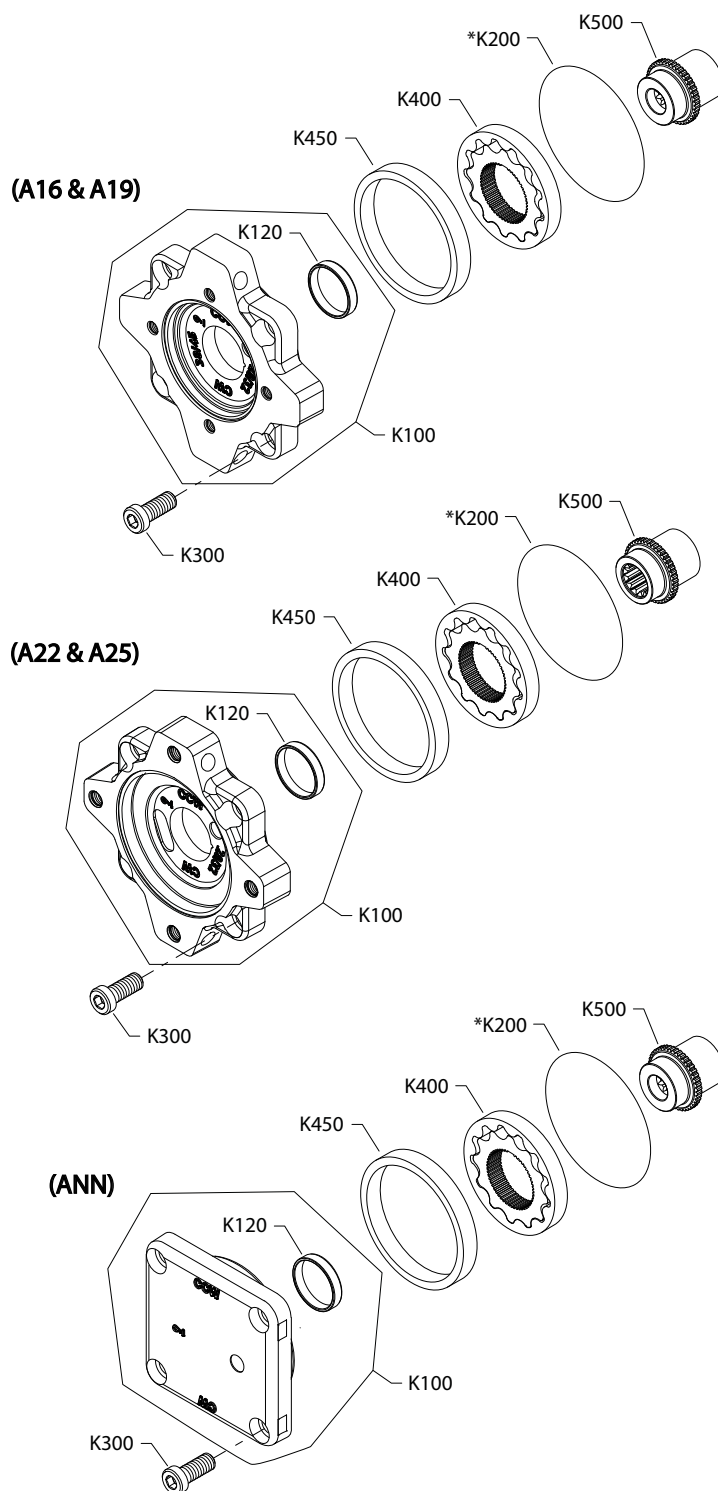
Order code: G7

J100	16-32		11169483	Shaft, 19 tooth	1
J150	16-32		357616	Roller bearing	1

Auxiliary mounting

MP1 aux mounting A16-ANN

Parts configuration



* Included in overhaul seal kit Q210

Auxiliary mounting

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K120	16-32		11189476	Journal bearing	1
K200	16-32		11174741	O-ring	1
K300	16-32		11000819	Screw, M12 x 25	4
K400	16-32		11155777	Gerotor assembly, 9cc	1
K450	16-32		11171571	Gerotor ring, 9cc	1

Order code: A16

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Order code: A19

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151244	Coupling, 11 tooth	1

Order code: A22

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151245	Coupling, 13 tooth	1

Order code: A25

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151246	Coupling, 15 tooth	1

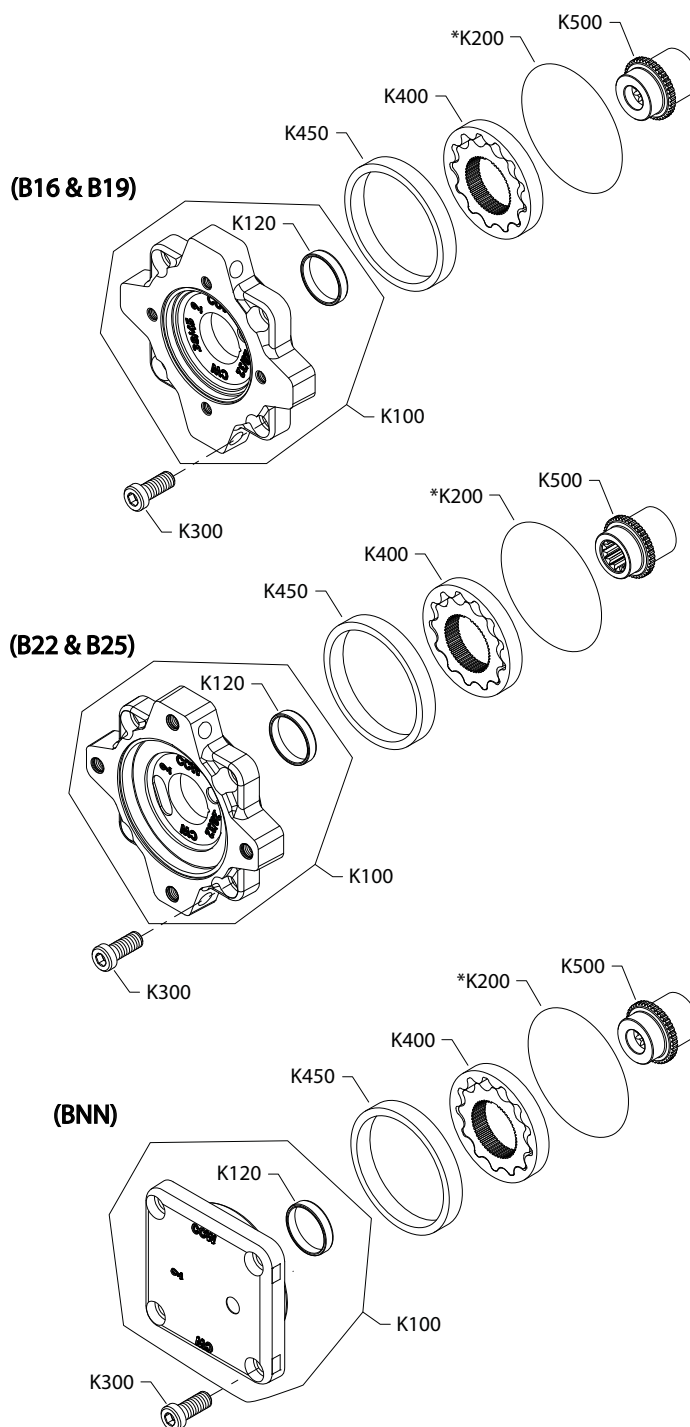
Order code: ANN

K100	16-32		11166271	Charge pump cover assembly, 9cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Auxiliary mounting

MP1 aux mounting B16-BNN

Parts configuration



* Included in overhaul seal kit Q210

Auxiliary mounting

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K120	16-32		11189476	Journal bearing	1
K200	16-32		11174741	O-ring	1
K300	16-32		11000819	Screw, M12 x 25	4
K400	16-32		11155777	Gerotor assembly, 9cc	1
K450	16-32		11171571	Gerotor ring, 9cc	1

Order code: B16

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Order code: B19

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151244	Coupling, 11 tooth	1

Order code: B22

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151245	Coupling, 13 tooth	1

Order code: B25

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151246	Coupling, 15 tooth	1

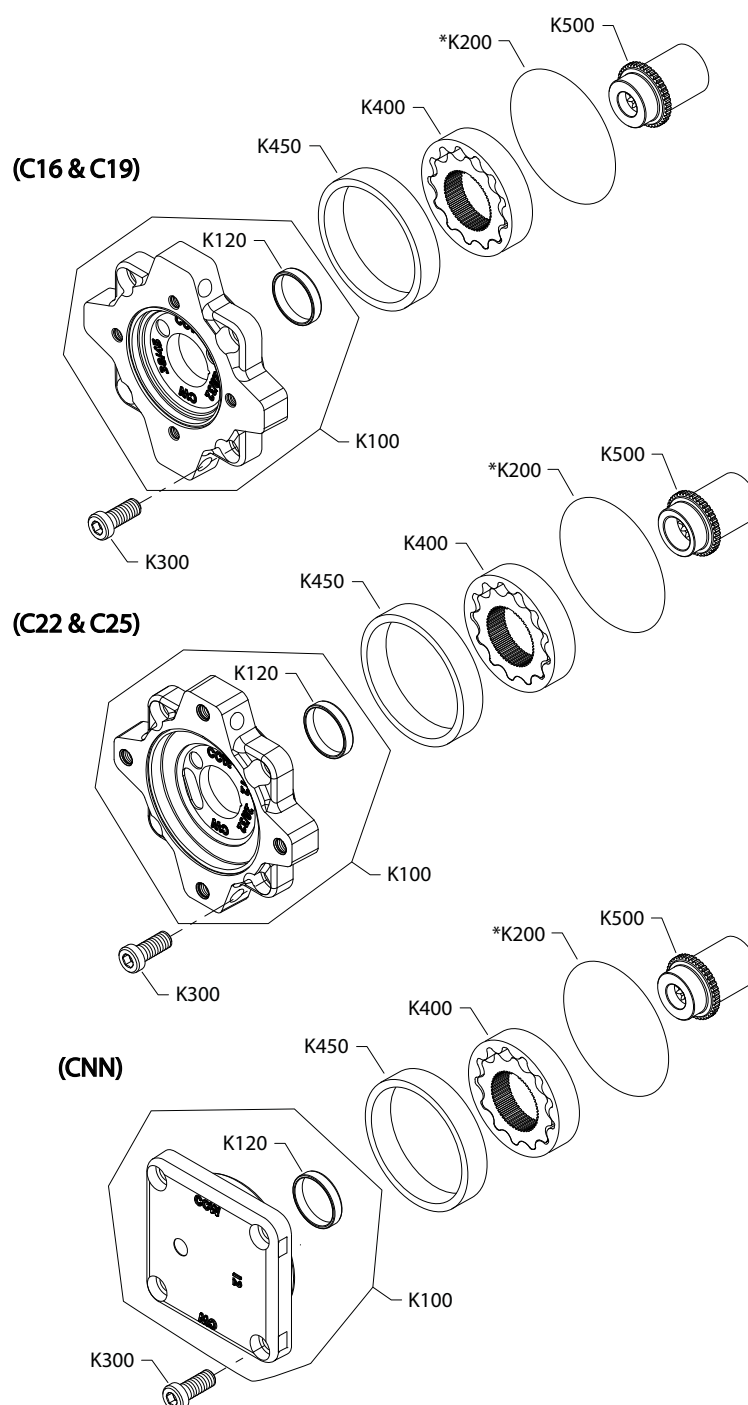
Order code: BNN

K100	16-32		11166271	Charge pump cover assembly, 9cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Auxiliary mounting

MP1 aux mounting C16-CNN

Parts configuration



* Included in overhaul seal kit Q210

Auxiliary mounting

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K120	16-32		11189476	Journal bearing	1
K200	16-32		11174741	O-ring	1
K300	16-32		11000819	Screw, M12 x 25	4
K400	16-32		11077232	Gerotor assembly, 12cc	1
K450	16-32		141595	Gerotor ring, 12cc	1

Order code: C16

K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Order code: C19

K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
K500	16-32		11151244	Coupling, 11 tooth	1

Order code: C22

K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
K500	16-32		11151245	Coupling, 13 tooth	1

Order code: C25

K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
K500	16-32		11151246	Coupling, 15 tooth	1

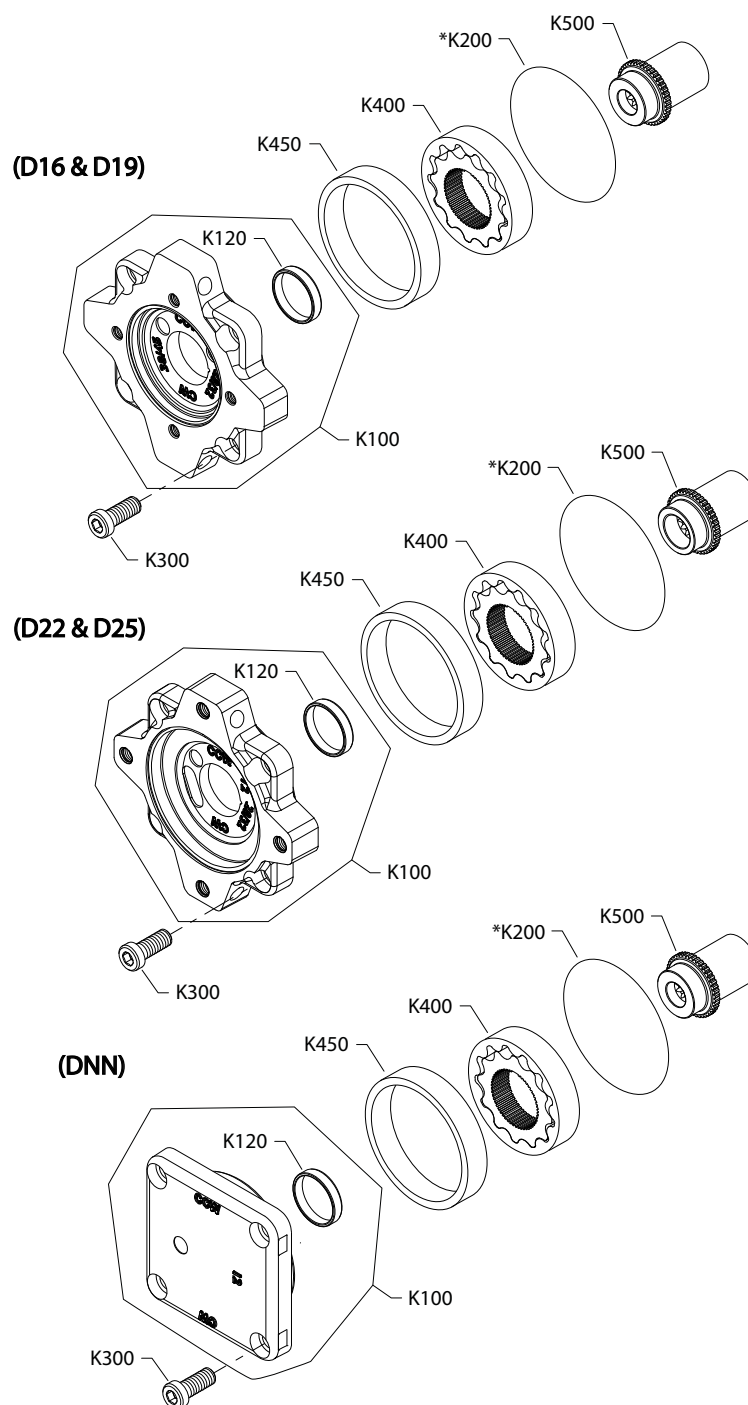
Order code: CNN

K100	16-32		11166274	Charge pump cover assembly, 12cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Auxiliary mounting

MP1 aux mounting D16-DNN

Parts configuration



* Included in overhaul seal kit Q210

Auxiliary mounting

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K120	16-32		11189476	Journal bearing	1
K200	16-32		11174741	O-ring	1
K300	16-32		11000819	Screw, M12 x 25	4
K400	16-32		11077232	Gerotor assembly, 12cc	1
K450	16-32		141595	Gerotor ring, 12cc	1

Order code: D16

K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Order code: D19

K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
K500	16-32		11151244	Coupling, 11 tooth	1

Order code: D22

K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
K500	16-32		11151245	Coupling, 13 tooth	1

Order code: D25

K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
K500	16-32		11151246	Coupling, 15 tooth	1

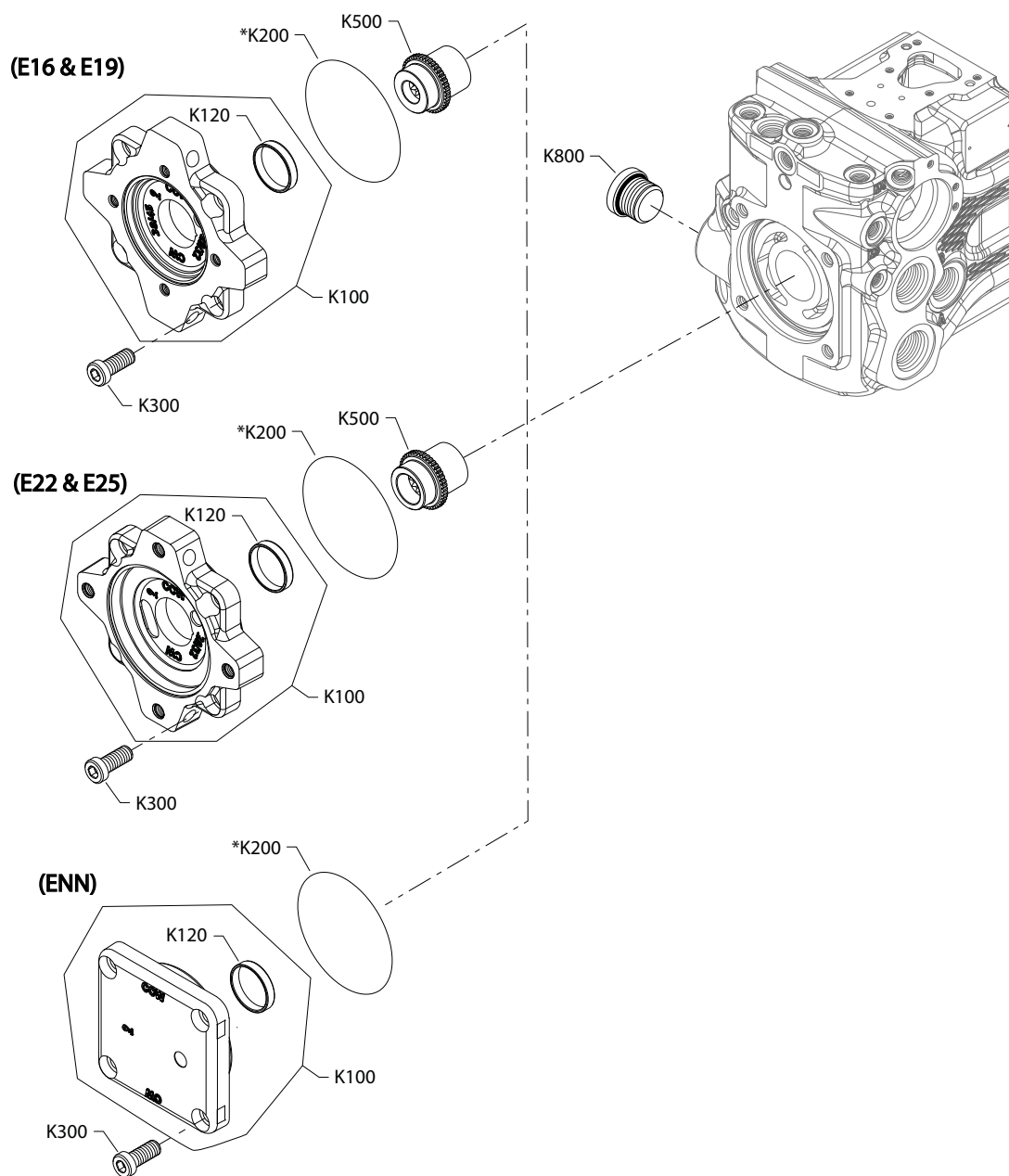
Order code: DNN

K100	16-32		11166274	Charge pump cover assembly, 12cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Auxiliary mounting

MP1 aux mounting E16-ENN

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Auxiliary mounting

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K120	16-32		11189476	Journal bearing	1
K200	16-32		11174741	O-ring	1
K300	16-32		11000819	Screw, M12 x 25	4
K800	16-32		664524 (9005110-9000)	Plug assembly	1

Order code: E16

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Order code: E19

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151244	Coupling, 11 tooth	1

Order code: E22

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151245	Coupling, 13 tooth	1

Order code: E25

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151246	Coupling, 15 tooth	1

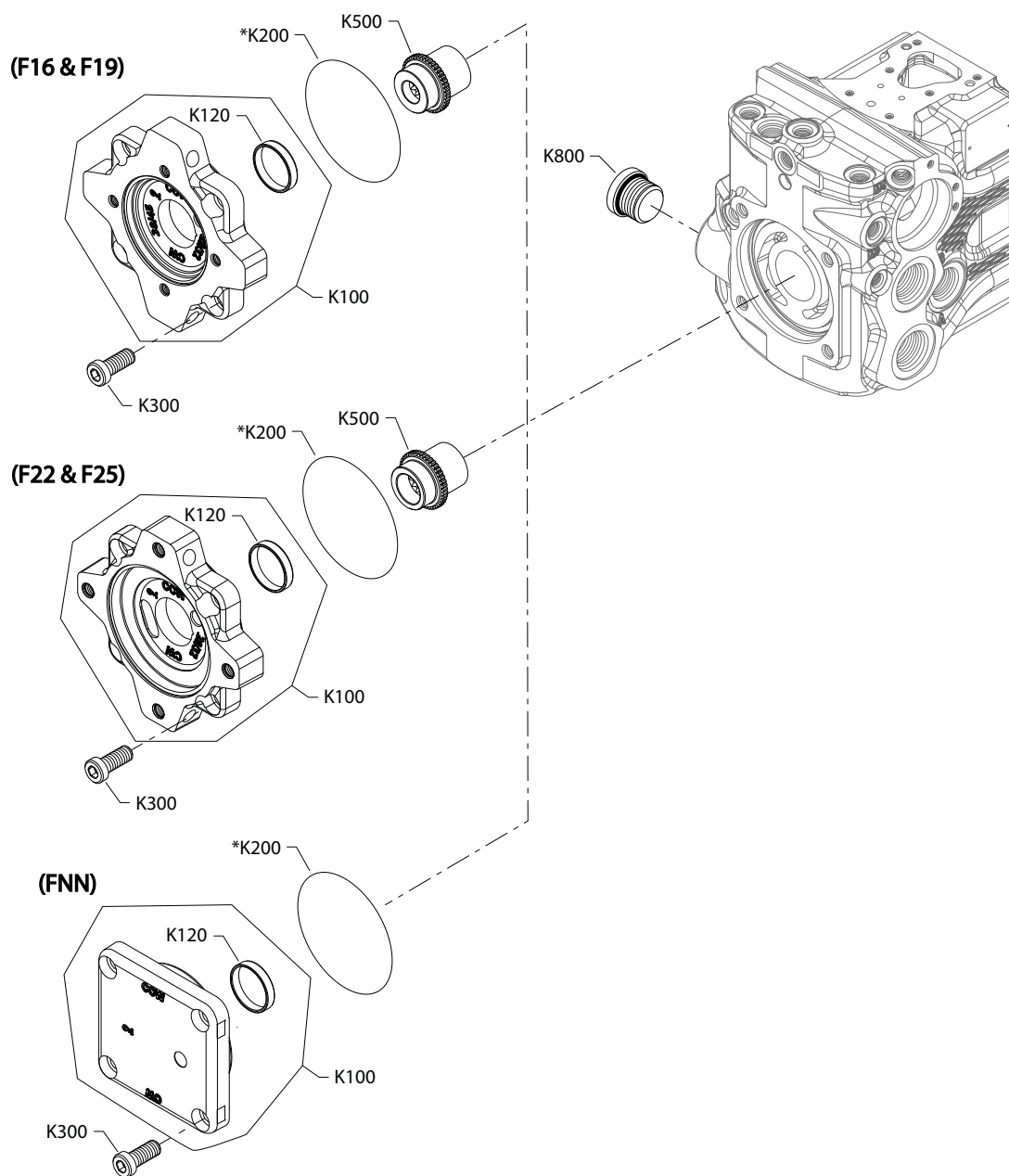
Order code: ENN

K100	16-32		11166271	Charge pump cover assembly, 9cc	1
------	-------	--	----------	---------------------------------	---

Auxiliary mounting

MP1 aux mounting F16-FNN

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Auxiliary mounting

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K120	16-32		11189476	Journal bearing	1
K200	16-32		11174741	O-ring	1
K300	16-32		11000819	Screw, M12 x 25	4
K800	16-32		11134927	Plug assembly, M27	1

Order code: F16

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151243	Coupling, 9 tooth	1

Order code: F19

K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
K500	16-32		11151244	Coupling, 11 tooth	1

Order code: F22

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151245	Coupling, 13 tooth	1

Order code: F25

K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
K500	16-32		11151246	Coupling, 15 tooth	1

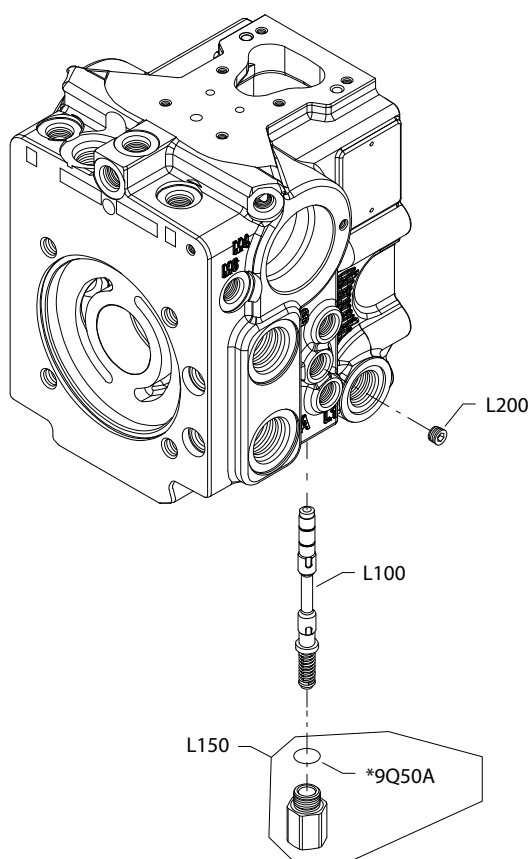
Order code: FNN

K100	16-32		11166271	Charge pump cover assembly, 9cc	1
------	-------	--	----------	---------------------------------	---

Loop flushing

MP1 38/45 loop flushing B, C

Parts configuration



* Included in overhaul seal kit Q210

Loop flushing

Order code: B

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L100	19-05		11217740	Loop flushing spool assembly	1
L150	19-05		4800279	Plug assembly	1
L200	19-05		11182693	Orifice, 1.6mm	1
9Q50A	19-05		085043 (9004201-3700)	O-ring	1

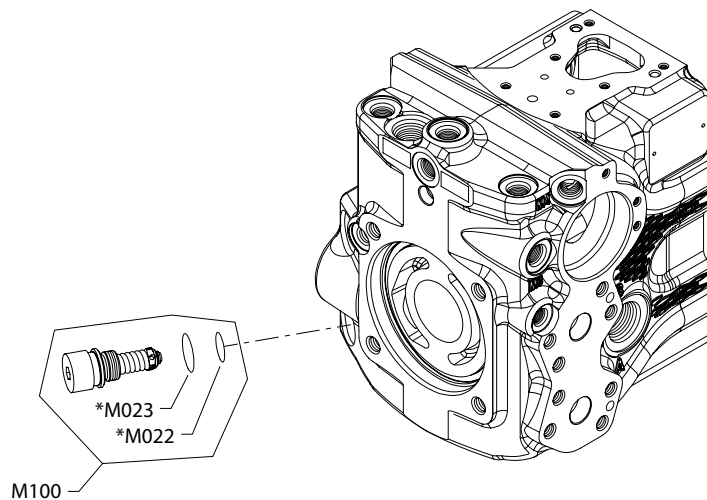
Order code: C

L100	19-05		11217740	Loop flushing spool assembly	1
L150	19-05		4800279	Plug assembly	1
L200	19-05		11182694	Orifice, 1.9mm	1
9Q50A	19-05		085043 (9004201-3700)	O-ring	1

System protection

MP1 system protections port A (140-385)

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

System protection

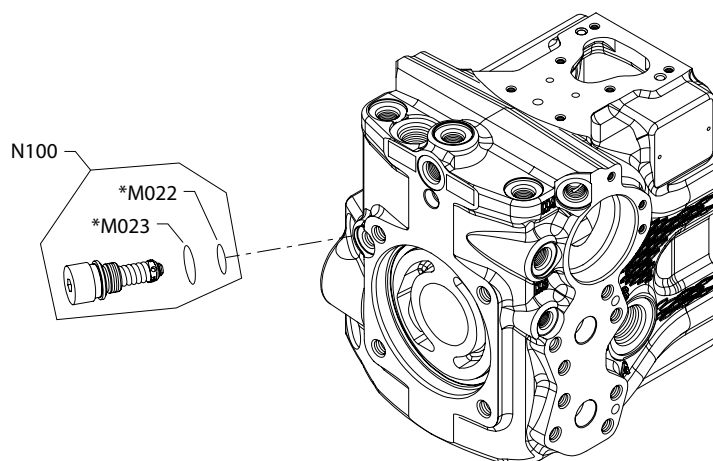
Order code: 140-385 parts

Order code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	M022	16-32		001131 (9004201-5000)	O-ring	1
	M023	16-32		9004100-2110	O-ring	1
140	M100	16-32		11224521	SCR valve assembly, 140 bar [2030 psi]	1
175	M100	16-32		11224532	SCR valve assembly, 175 bar [2538 psi]	1
190	M100	16-32		11224533	SCR valve assembly, 190 bar [2755 psi]	1
210	M100	16-32		11224534	SCR valve assembly, 210 bar [3045 psi]	1
230	M100	16-32		11224535	SCR valve assembly, 230 bar [3335 psi]	1
250	M100	16-32		11224536	SCR valve assembly, 250 bar [3625 psi]	1
260	M100	16-32		11224537	SCR valve assembly, 260 bar [3770 psi]	1
280	M100	16-32		11224538	SCR valve assembly, 280 bar [4060 psi]	1
300	M100	16-32		11224539	SCR valve assembly, 300 bar [4350 psi]	1
325	M100	16-32		11224540	SCR valve assembly, 325 bar [4712 psi]	1
345	M100	16-32		11224541	SCR valve assembly, 345 bar [5000 psi]	1
360	M100	16-32		11224542	SCR valve assembly, 360 bar [5220 psi]	1
385	M100	16-32		11224543	SCR valve assembly, 385 bar [5580 psi]	1

System protection

MP1 system protections port B (140-385)

Parts configuration



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

System protection

Order code: 140-385 parts

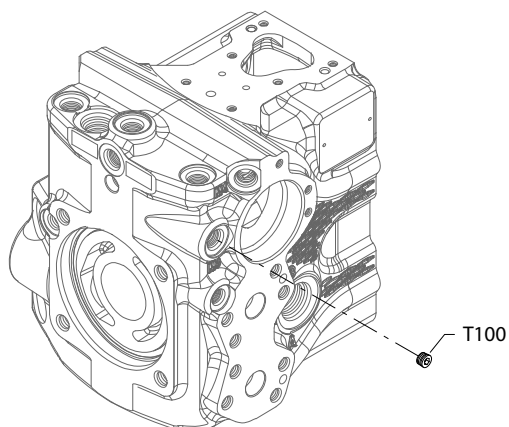
Order code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	M022	16-32		001131 (9004201-5000)	O-ring	1
	M023	16-32		9004100-2110	O-ring	1
140	N100	16-32		11224521	SCR valve assembly, 140 bar [2030 psi]	1
175	N100	16-32		11224532	SCR valve assembly, 175 bar [2538 psi]	1
190	N100	16-32		11224533	SCR valve assembly, 190 bar [2755 psi]	1
210	N100	16-32		11224534	SCR valve assembly, 210 bar [3045 psi]	1
230	N100	16-32		11224535	SCR valve assembly, 230 bar [3335 psi]	1
250	N100	16-32		11224536	SCR valve assembly, 250 bar [3625 psi]	1
260	N100	16-32		11224537	SCR valve assembly, 260 bar [3770 psi]	1
280	N100	16-32		11224538	SCR valve assembly, 280 bar [4060 psi]	1
300	N100	16-32		11224539	SCR valve assembly, 300 bar [4350 psi]	1
325	N100	16-32		11224540	SCR valve assembly, 325 bar [4712 psi]	1
345	N100	16-32		11224541	SCR valve assembly, 345 bar [5000 psi]	1
360	N100	16-32		11224542	SCR valve assembly, 360 bar [5220 psi]	1
385	N100	16-32		11224543	SCR valve assembly, 385 bar [5580 psi]	1

Flitration and charge pressure relief

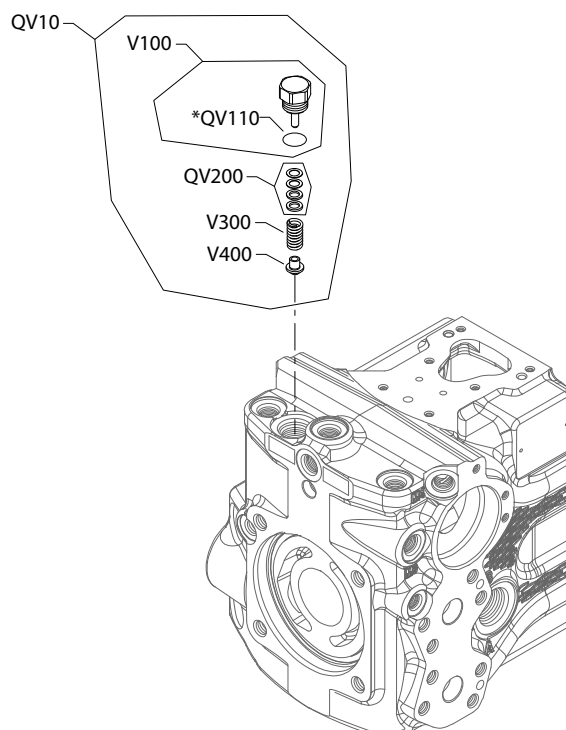
MP1 filtration and charge pressure relief

Parts configuration

(E & R)



(10-28)



* Included in overhaul seal kit Q210

Generic housing used to show part location only.

Filtration and charge pressure relief

Order code: E and R

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
T100	16-32		11151778	Pipe plug w/sealant	1

Order code: 10-12

QV10	16-32		11266646	Charge relief valve kit, 10-12 bar	1
QV110	16-32		001149 (9004201-6200)	O-ring	1
QV200	16-32		4510027	Shim kit	1
V100	16-32		4800308	Plug assembly	1
V300	16-32		4800714	Spring	1
V400	16-32		1200359	Poppet	1
V400	16-32		11259146	Poppet	1

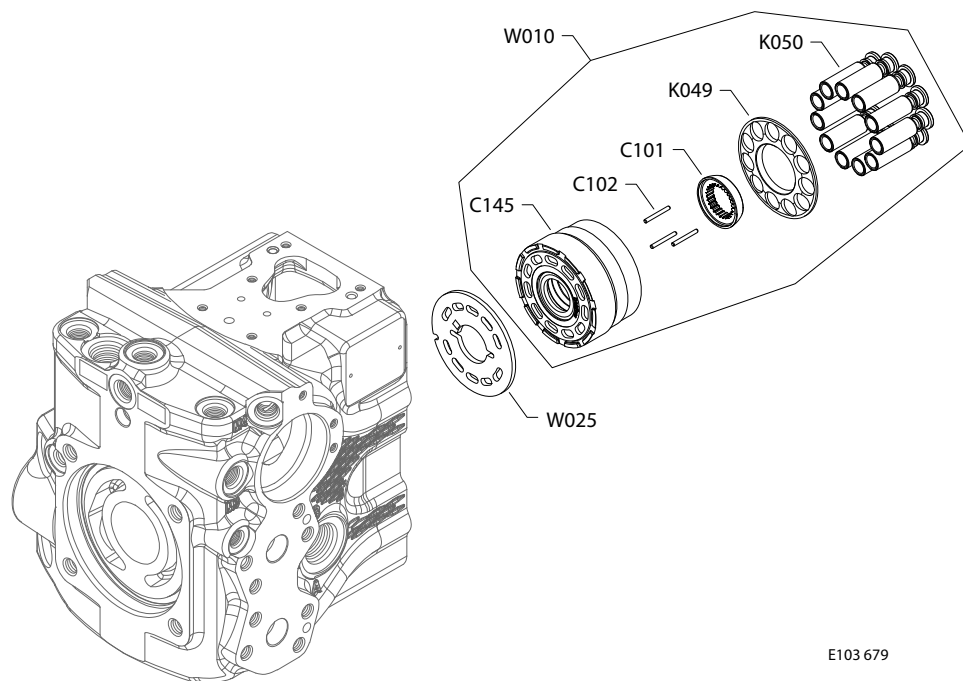
Order code: 14-28

QV10	16-32		11266333	Charge relief valve kit, 14-28 bar	1
QV110	16-32		001149 (9004201-6200)	O-ring	1
QV200	16-32		4510027	Shim kit	1
V100	16-32		4800308	Plug assembly	1
V300	16-32		4800176	Spring	1
V400	16-32		1200359	Poppet	1
V400	16-32		11259146	Poppet	1

Special hardware

MP1 38/45 special hardware LAE-LBF

Parts configuration



E103 679

Generic housing used to show part location only.

Special hardware

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C101	16-32		11175544	Slipper retainer guide	1
C102	16-32		4700091	Slipper hold down pin	3
K049	16-32		11171949	Slipper retainer	1

Order code: LAE

C145	16-32		11223848	Cylinder block assembly, 38cc	1
K050	16-32		11162333	Piston assembly, 38cc	11
W010	16-32		11223849	Cylinder block kit, 38cc	1
W025	16-32		11154966	Valve plate, CCW	1

Order code: LAF

C145	16-32		11223854	Cylinder block assembly, 45cc	1
K050	16-32		11144746	Piston assembly, 45cc	11
W010	16-32		11223855	Cylinder block kit, 45cc	1
W025	16-32		11154966	Valve plate, CCW	1

Order code: LBE

C145	17-37		11223848	Cylinder block assembly, 38cc	1
K050	17-37		11162333	Piston assembly, 38cc	11
W010	17-37		11223849	Cylinder block kit, 38cc	1
W025	17-37		11192088	Valve plate, CCW	1

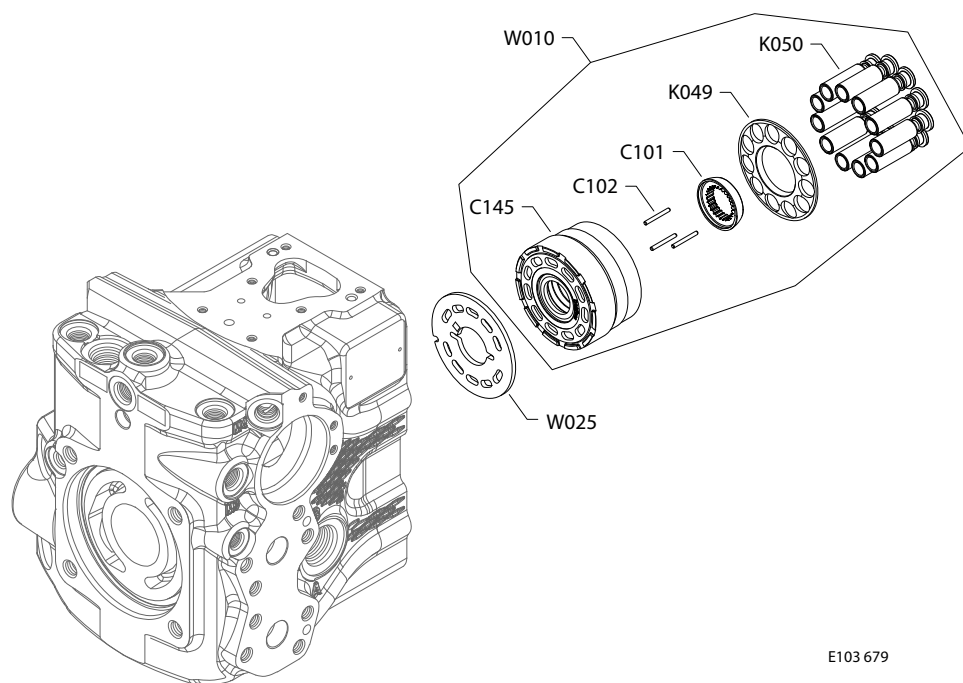
Order code: LBF

C145	17-37		11223854	Cylinder block assembly, 45cc	1
K050	17-37		11144746	Piston assembly, 45cc	11
W010	17-37		11223855	Cylinder block kit, 45cc	1
W025	17-37		11192088	Valve plate, CCW	1

Special hardware

MP1 38/45 special hardware RAE-RBF

Parts configuration



Generic housing used to show part location only.

Special hardware

Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C101	16-32		11175544	Slipper retainer guide	1
C102	16-32		4700091	Slipper hold down pin	3
K049	16-32		11171949	Slipper retainer	1

Order code: RAE

C145	16-32		11223848	Cylinder block assembly, 38cc	1
K050	16-32		11162333	Piston assembly, 38cc	11
W010	16-32		11223849	Cylinder block kit, 38cc	1
W025	16-32		11154965	Valve plate, CW	1

Order code: RAF

C145	16-32		11223854	Cylinder block assembly, 45cc	1
K050	16-32		11144746	Piston assembly, 45cc	11
W010	16-32		11223855	Cylinder block kit, 45cc	1
W025	16-32		11154965	Valve plate, CW	1

Order code: RBE

C145	17-37		11223848	Cylinder block assembly, 38cc	1
K050	17-37		11162333	Piston assembly, 38cc	11
W010	17-37		11223849	Cylinder block kit, 38cc	1
W025	17-37		11192087	Valve plate, CW	1

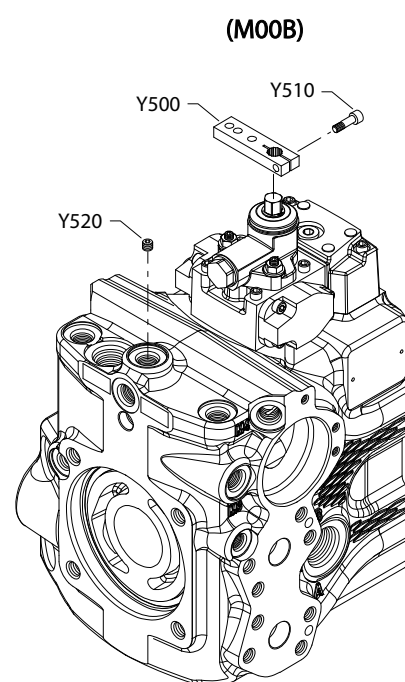
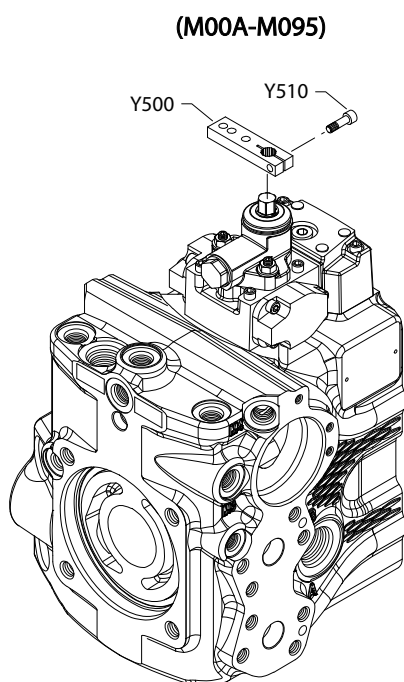
Order code: RBF

C145	17-37		11223854	Cylinder block assembly, 45cc	1
K050	17-37		11144746	Piston assembly, 45cc	11
W010	17-37		11223855	Cylinder block kit, 45cc	1
W025	17-37		11192087	Valve plate, CW	1

Settings

MP1 settings M00A-M095

Parts configuration



Generic housing and control used to show part location only.

Settings

Settings parts list

Order code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
M00A	Y500	16-32		11185938	Control handle (SB-2018-024 on page 113)	1
	Y510	16-32		11173701	Screw, M6 x 20	1
M00B	Y500	16-32		11185938	Control handle (SB-2018-024 on page 113)	1
	Y510	16-32		11173701	Screw, M6 x 20	1
	Y520	16-32		11151778	Pipe plug	1
M090	Y500	16-32		11185938	Control handle (SB-2018-024 on page 113)	1
	Y510	16-32		11173701	Screw, M6 x 20	1
M095	Y500	16-32		11185938	Control handle (SB-2018-024 on page 113)	1
	Y510	16-32		11173701	Screw, M6 x 20	1

Overhaul seal kit

MP1 38/45cc seal kit

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
Q210	16-32		11170024	Overhaul seal kit	1
D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
D150	16-32		11227209	Control gasket	1
D610	19-07	21-12	11000467	Plug assembly (SB-2021-014 on page 116)	2
D611	21-13		11225703	O-ring	2
D612	21-13		11223708	Plug	2
E080	16-32		505412 (9003509-0008)	Seal nut, M8	1
E090	16-32		505412 (9003509-0008)	Seal nut, M8	1
E110	16-32		5000709	O-ring	2
E320	16-32		9004100-2230	O-ring	2
E330	16-32		11164998	Piston seal ring	2
H110	16-32		11157168	Front cover seal gasket	1
J250	16-32		11103135	Lip seal	1
K200	16-32		11174741	O-ring	1
M022	16-32		001131 (9004201-5000)	O-ring	2
M023	16-32		9004100-2110	O-ring	2
QD26	16-32		11001952	O-ring	2
QD751	16-32		001131 (9004201-5000)	O-ring	1
QD81	16-32		11152257	O-ring	1
QV110	16-32		001149 (9004201-6200)	O-ring	1

Service bulletin

SB-2018-024

Products affected

MP1 controls

Subject

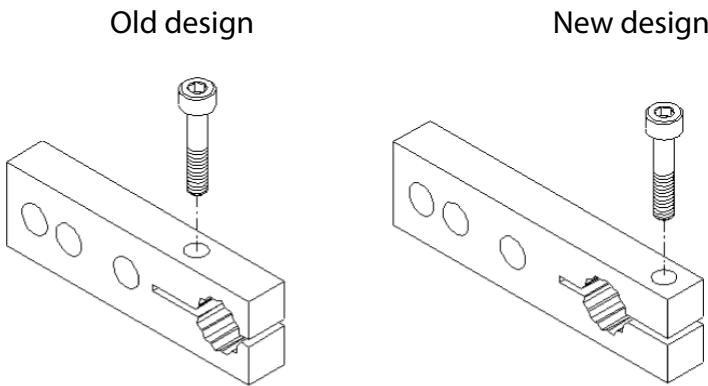
Manual displacement control design change

Description

Danfoss has changed the control handle design on all manual displacement controls used on 28/32cc and 38/45cc MP1 pumps as a product improvement.

The tension screw location has been moved to the outer edge of the part to increase the clamping capacity onto the shaft.

The new part is interchangeable with the old part, but the old part is not interchangeable with the new part due to the clamp load of the part to the shaft.



Models affected

MP1 28/32cc and 38/45cc pumps

Serial numbers affected

This change became effective at February 28, 2018 (A-18-09-xxxxx)

Part numbers affected

Description	Old part number	New part number
Handle	11113513	11185938

Parts disposition

Non-interchangeable (because of clamp load)

SB-2018-040

Products affected

MP1 pumps

Service bulletin

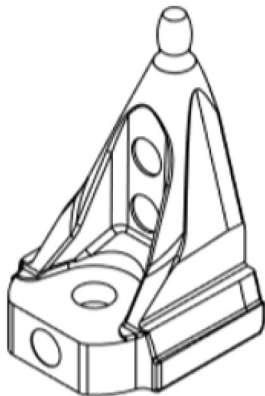
Subject

Link pin design change

Description

Danfoss has made a design change to the link pin on MP1 28/32cc and 38/45cc pumps. The new link pin will accommodate additional angle sensor parts.

The new link pin can be used in place of the old, but the old link pin cannot be used in place of the new.



Old Part
PN #11149293



New Part
PN #11195668

Models affected

MP1 28/32, 38/45cc pumps

Serial numbers affected

This change became effective at A-18-44-41438 (October 26, 2018).

Part numbers affected

Description	Old number	New number
Swashplate feedback link	11149295	11195668

Parts disposition

Non-interchangeable

SB-2019-007

Products affected

MP1 Pumps

Subject

Housing assembly design and part number change

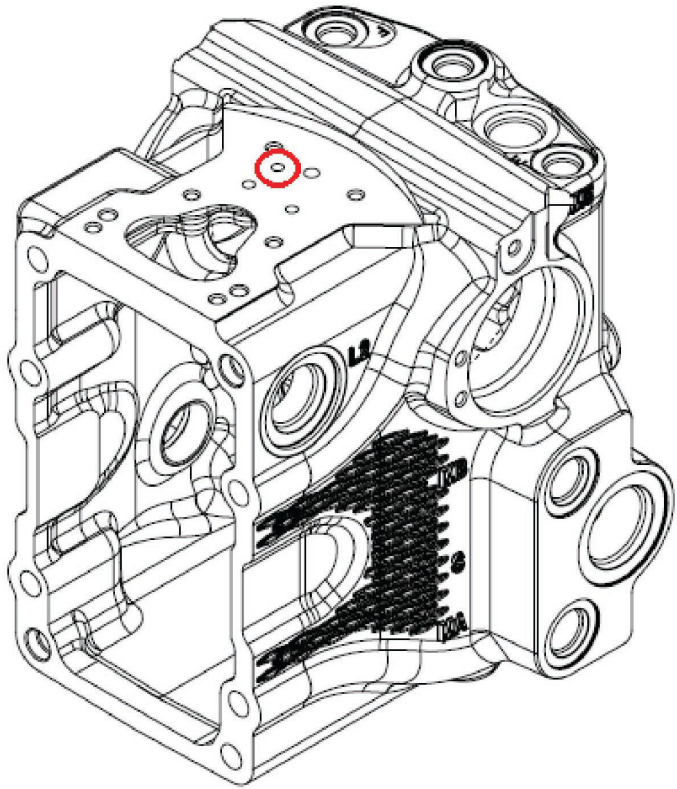
Description

Danfoss

Service bulletin

Danfoss Power Solutions has made a design change to the housing assembly on MP1 38/45cc pumps. The new housing design has a case drain hole drilled into the housing to allow the CCO valve to function properly.

The new housing assembly has been assigned a new part number. The old housings will be obsoleted. The new part can be substituted for the old part, but the old part cannot be substituted for the new.



Models affected

MP1 38/45cc pumps

Serial numbers affected

This change became effective at Serial number A184663387 (November 13, 2018)

Part numbers affected

Description	Old part number	New part number
HSG/End cap assy - 038/045 ISO 11926-1 prts	11165969	11229275
HSG/EC assy - 038/045 ISO 6162-1 prts inch	11165970	11229276
HSG/End cap assy - 038/045 ISO 6149-1 prts	11165971	11229277
NUT-HEX, SW22	11165972	11229278

Parts disposition

Non-interchangeable (internal parts)

Service bulletin

SB-2021-014

Products affected

H1 and MP1 pumps

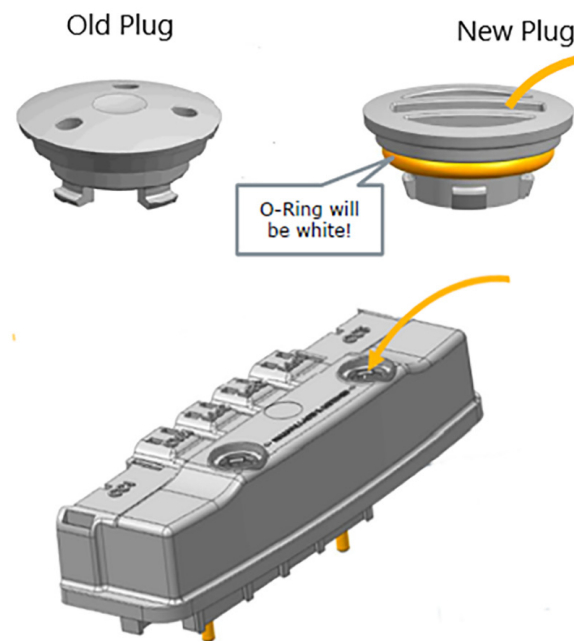
Subject

Automotive control plug design change

Description

Danfoss Power Solutions has made a design change to the Automotive Control (AC) plug on H1 and MP1 products. The new O-ring has an improved seal around the plug to the housing. This affects all automotive control service kits (AC).

The new and old plugs are not interchangeable. Overhaul seal kits will contain both the old and new plugs. Automotive Control (AC) service kit part numbers have been changed because the plug is non-interchangeable. The older service kits have been obsoleted.



Models affected

H1, MP1 Automotive Control (AC)

Serial numbers affected

- This change became effective at N-21-13-xxxxx 01 April 2021
- This change became effective at S-21-17-xxxxx 28 May 2021
- This change became effective at A-21-18-xxxxx 03 May 2021

Service bulletin

Part numbers affected

Description	Old Part Number	New Part Number
PLUG-HOUSING-CONTROLLER-AC H1P ASSY	11000467	11226992
SVC KIT-AC1, GEN1 12V GENERIC D3F	11065118	11232544
SVC KIT-AC2, GEN1 12V GENERIC D5F	11065119	11232766
SVC KIT-AC1, GEN1 24V GENERIC D4F	11065120	11232765
SVC KIT-AC2, GEN1 24V GENERIC D6F	11065121	11232767
SVC KIT-AC1, GEN3 12V GENERIC D3F	11147941	11232768
SVC KIT-AC2, GEN3 12V GENERIC D5F	11147940	11232770
SVC KIT-AC1, GEN3 24V GENERIC D4F	11147943	11232769
SVC KIT-AC2, GEN3 24V GENERIC D6F	11147942	11232771
SVC KIT-AC1, GEN3 FLASH 12V GENERIC F1E	11180761	11232792
SVC KIT-AC1, GEN3 FLASH 24V GENERIC F1E	11180762	11232793
SVC KIT-AC2, GEN3 FLASH 12V GENERIC F2J	11180763	11232794
SVC KIT-AC2, GEN3 FLASH 24V GENERIC F2J	11180765	11232795
SVC KIT-AC1, GEN1 HG 12V GENERIC D3F	11082509	11234305
SVC KIT-AC2, GEN1 HG 12V GENERIC D5F	11082522	11234306
SVC KIT-AC1, GEN1 HG 24V GENERIC D4F	11082524	11234307
SVC KIT-AC2, GEN1 HG 24V GENERIC D6F	11052526	11234308
SVC KIT-AC1, H1P078 GEN1 12V CUST D33	11134620	11234311
SVC KIT-AC1, GEN1 12V CUST D57	11155464	11234317
SVC KIT-AC1, H1P078 GEN1 12V CUST D20	11160841	11234319
SVC KIT-AC1, GEN1 24V CUST D61	11193660	11234326
SVC KIT-AC2, GEN1 24V GENERIC D5J	11195129	11234327
SVC KIT-AC2, GEN1 24V CUST C90 C93	11195374	11234328
SVC KIT-AC1, GEN1 12V CUST D90	11193446	11234416
SVC KIT-AC1, GEN3 12V CUST D90	11198212	11234417
SVC KIT-AC1, GEN3 12V CUST D93	11201433	11234418
SVC KIT-AC1, GEN1 12V CUST D12	11201908	11234419
SVC KIT-AC, H1P 12V CUST (D92)	11235075	11235075
SVC KIT-AC1, GEN3 FLASH 12V FA1	11239052	11281634

Parts disposition

Non-interchangeable

SB-2024-007

Products affected

H1 manual controls

Subject

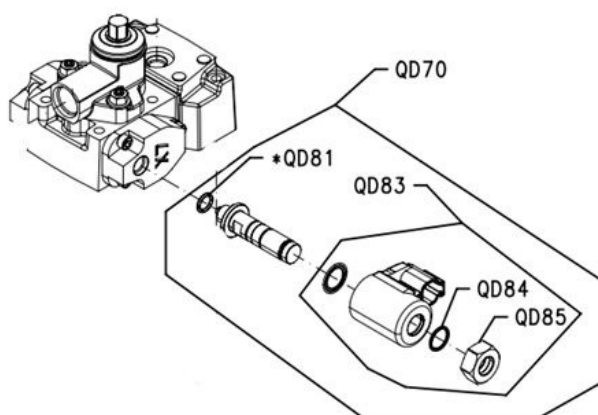
CCO thread

Description

Danfoss has increased the overall length of the coil and nut by 2mm on the CCO valve assembly. This effect all manual control valves on H1P, H1T and MP1 pumps. Can substitute new solenoid kit for old solenoid kit: CANNOT substitute old service kit for new service kit.

Service bulletin

The internal parts are not interchangeable from new to old, or old to new. The old solenoid assembly and their internal parts are obsolete and no longer available as service parts.



Models affected

H1 manual controls

Serial numbers affected

This change became effective at February 02, 2024

Part numbers affected

Description	Old part number	New part number	Item #
SOLENOID, ON/OFF THREAD 12V DT04-2P	11129916	11231212	QD70
SOLENOID, ON/OFF THREAD 24V DT04-2P	11129917	11231213	QD70
O-RING, HMS151 9.00x1.80 N NBR70	11152257	No Change	QD81
NUT-HEX, SW22	11140394	No Change	QD85
Internal parts non-interchangeable			QDxx *
SVC KIT-COIL, 12V DT CONN CCO	11136347	11253939	QD83 *
SVC KIT-COIL, 24V DT CONN CCO	11136348	11253938	QD83 *
O-RING, ISO3601-1 13.00x2.00 N-FKM70	11140393	11232752	QD84 *
O-RING, ISO3601-1 17.00x1.50 N-VMQ70	11149504	11232753	QD86 *

Parts disposition

Non-interchangeable (internal parts)

Interchangeable (complete assembly)

Products we offer:

- Cylinders
- Electric converters, machines, and systems
- Electronic controls, HMI, and IoT
- Hoses and fittings
- Hydraulic power units and packaged systems
- Hydraulic valves
- Industrial clutches and brakes
- Motors
- PLUS+1® software
- Pumps
- Steering
- Transmissions

Danfoss Power Solutions designs and manufactures a complete range of engineered components and systems. From hydraulics and electrification to fluid conveyance, electronic controls, and software, our solutions are engineered with an uncompromising focus on quality, reliability, and safety.

Our innovative products makes increased productivity and reduced emissions a possibility, but it's our people who turn those possibilities into reality. Leveraging our unsurpassed application know-how, we partner with customers around the world to solve their greatest machine challenges. Our aspiration is to help our customers achieve their vision — and to earn our place as their preferred and trusted partner.

Go to www.danfoss.com or scan the QR code for further product information.

**Hydro-Gear**

www.hydro-gear.com

Daikin-Sauer-Danfoss

www.daikin-sauer-danfoss.com

**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 2222

**Danfoss
Power Solutions Trading
(Shanghai) Co., Ltd.**
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
Phone: +86 21 2080 6201

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 subsequent 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.