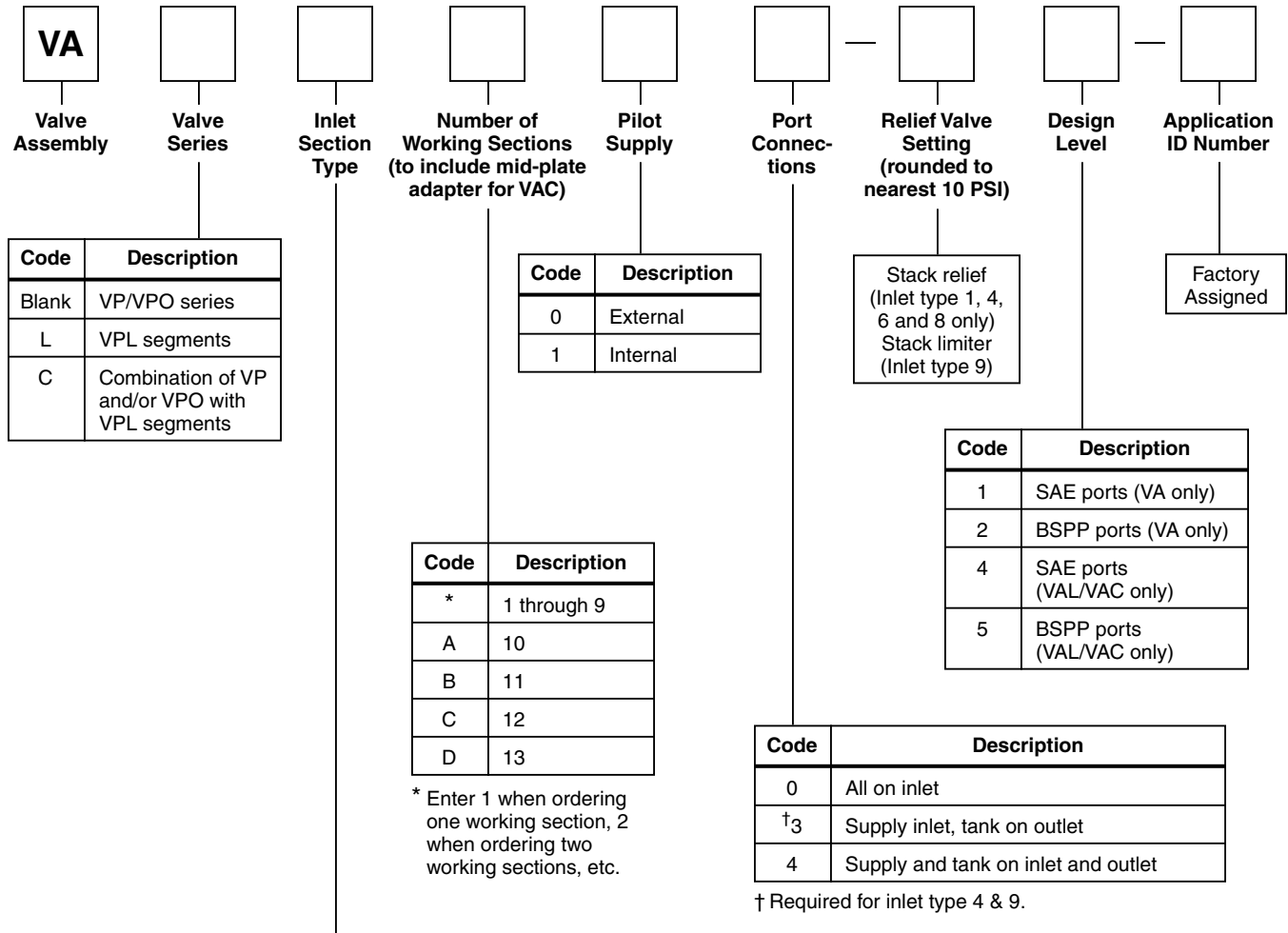


## Valve Assemblies for VP/VPO/VPL Series Valve Stack

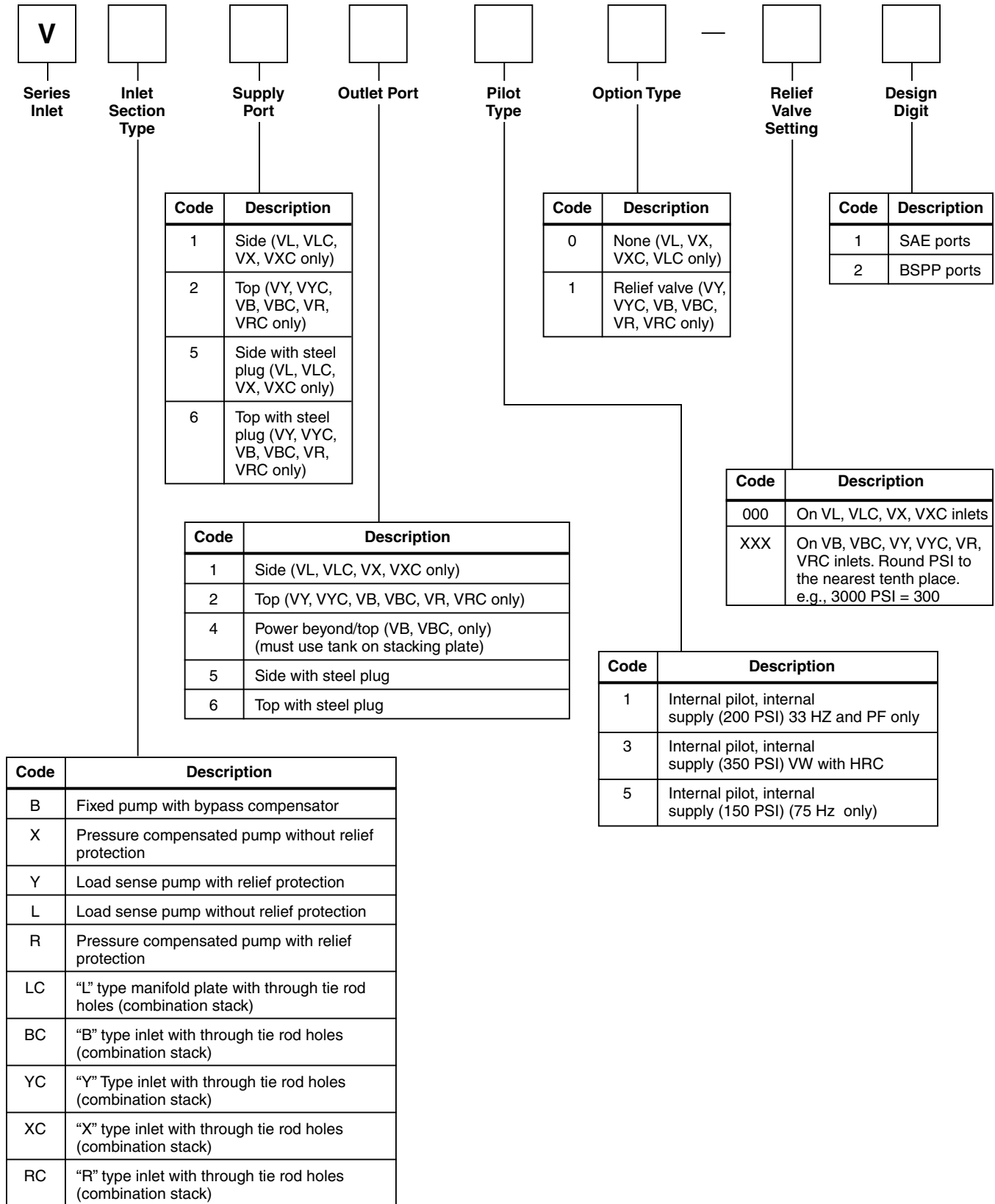


Code	Description
1	Fixed pump with bypass compensator (VB, VBL, VBC)
3	Load sense pump without relief (VL, VLL, VLC)
4	Fixed pump with power beyond port (VB, VBL, VBC)
†5	Pressure compensated pump without relief (VX, VXL, VXC)
6	Load sense pump with relief (VY, VYL, VYC)
†8	Pressure compensated pump with relief (VR, VRL, VRC)
†9	Pressure compensated pump with inlet regulator, only for non-compensated segments (VEL)

† If any segments in the stack are non-compensated, then do not use a “5” or “8” type inlet. Either choose all compensated segments or use “9” type inlet with non-compensated segments.

**Pulsar® Stackable Valves**

**VP/VPO Series Inlet**



**VP/VPO Inlet****Service Parts**

<b>Part No.</b>	<b>Description</b>
VAPPK1	Pilot Reducing Adjustment Screw and Lock Nut Kit
VBCPK3001	Compensator Adjustment Kit (Standard)
VBIFK1	Inlet Pilot Filter Kit - Bypassing (VB, VY, VBC, VYC, VR, VRC)
VBIFK2	Inlet Pilot Filter Kit with External Supply
VBISK1	Bypass Inlet Spool Kit
VBPRK1	Pilot Reducing Kit, 200 PSI
VBPRK2	Pilot Reducing Kit, 350 PSI
VBPRK3	Pilot Reducing Kit, 150 PSI
VBSK1	Compensator O-ring Kit (VB, VBC, VY, VYC, VR, VRC)
VLPFK1	Inlet Pilot Filter - Load Sensing (VL, VLC, VX, VXC)
VPBPK1	Power Beyond Plug Kit
VYISK1	Relief Inlet Spool Kit (VY)

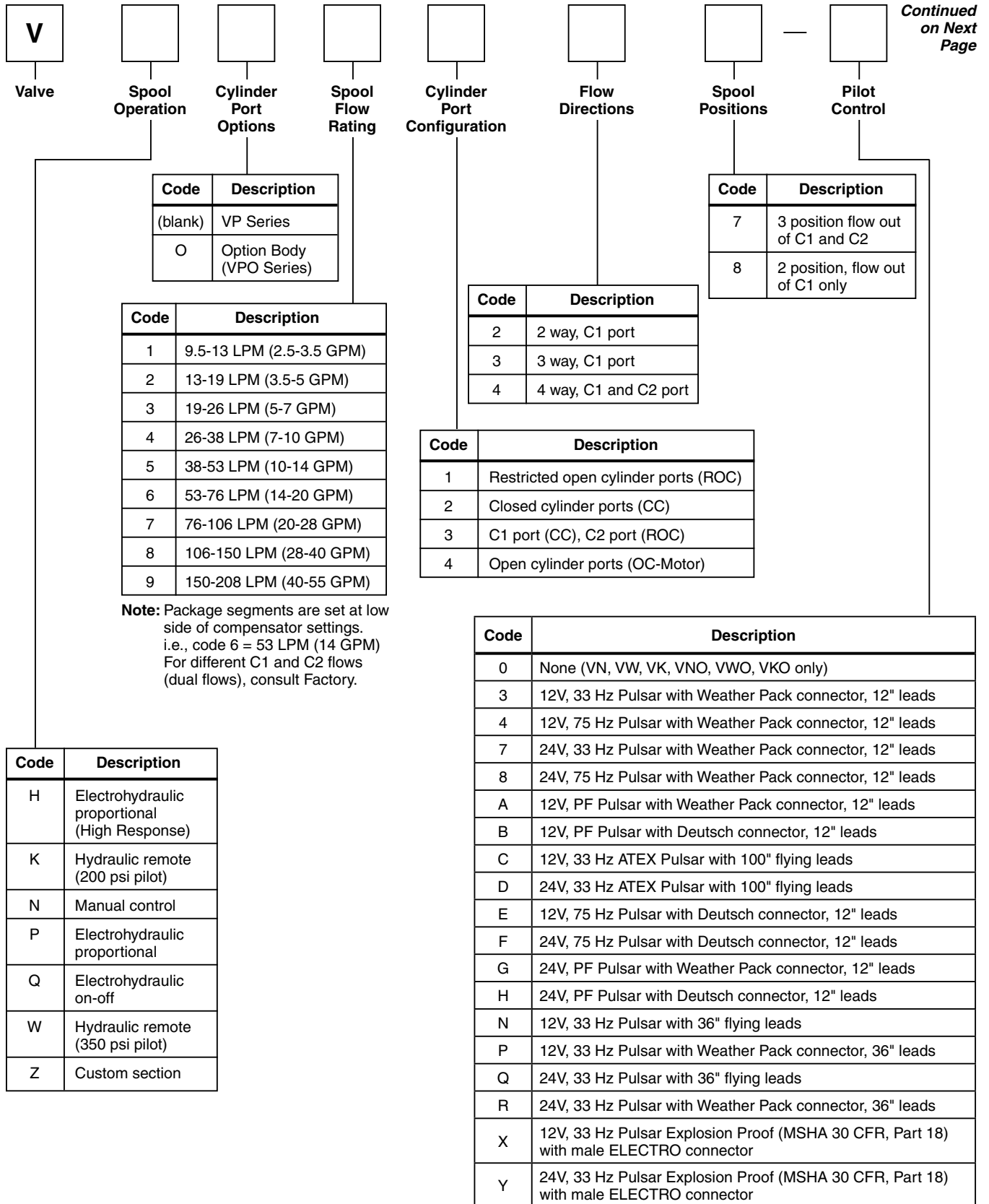
**VP/VPO Inlet (Cont.)****Inlet Seal Kit (VB, VY, VBC, VYC, VR, VRC)**

<b>Part No.</b>	<b>Description</b>
VBSK2	SAE Nitrile
VBSK3	BSPP Nitrile

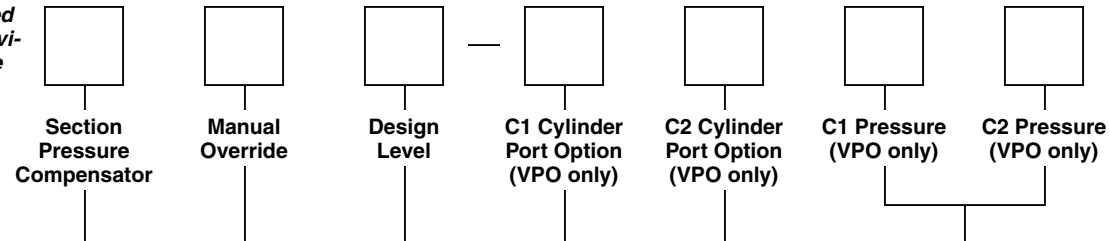
**Inlet Seal Kit (VL, VLC, VX, VXC)**

<b>Part No.</b>	<b>Description</b>
VLSK1	SAE Nitrile
VLSK2	BSPP Nitrile

**VP/VPO Series Working Segment**



Continued from Previous Page



Code	Description
1	SAE ports
2	BSPP ports

Code	Description
3	Manual operator shaft only
4	Manual adapter & 6-inch handle rod VP Series VPO Series
5	Manual adapter only VP Series VPO Series
8	Manual adapter and 9" handle rod VP Series VPO Series

Code	Pressure Setting
A	50 Bar (750 PSI)
B	63 Bar (950 PSI)
C	80 Bar 1150 PSI)
D	100 Bar (1450 PSI)
F	125 Bar (1850 PSI)
G	140 Bar (2050 PSI)
H	160 Bar (2350 PSI)
J	175 Bar (2550 PSI)
K	190 Bar (2750 PSI)
L	210 Bar (3050 PSI)
M	230 Bar (3350 PSI)
N	250 Bar (3650 PSI)
P	280 Bar (4050 PSI)
R	300 Bar (4350 PSI)
S	320 Bar (4650 PSI)
T	350 Bar (5050 PSI)
O	N/A

Code	Description
†1	Non-compensated (for desired flow, select 2 sizes smaller spool min. rating)
2	Individual segment compensator (ISC) shim adjust, low profile design
††3	ISC with external adjust pressure limiter low profile, single segment
††4	ISC with external adjust pressure limiter low profile, multi-segment, first position
††5	ISC with external adjust pressure limiter low profile, multi-segment, intermediate position
††6	ISC with external adjust pressure limiter low profile, multi-segment, final position
A	Externally adjustable ISC, high profile design
E	Individual compensator with ported L.S. plug

† Without compensation, max flow can only be adjusted with flow limiters.

†† For package segments, pressure limiters are set at 1500 PSI.

Code	Description
1	Relief
2	Relief, with anticavitation check
3	Anticavitation check
4	Float, 12 VDC
5	Float, 24 VDC
6	Defeat plug

Code	Description
1	Relief
2	Relief, with anticavitation check
3	Anticavitation check
4	Float, 12 VDC
5	Float, 24 VDC
6	Defeat plug

**Pulsar® Stackable Valves****VP/VPO Series Working Segment****Service Parts**

<b>Part No.</b>	<b>Description</b>
VORLSK1	Refurbished Load Sense Kit
VPCSK1	Individual Compensator Shim Kit (100 each 0.025, 0.008, 0.003)
VPEPK1	End Plug Kit
VPFHAK1	Fixed Operator Adapter Kit (VP)
VPFLK1	Flow Limiter Kit
VPFS1K2	Compensator Field Service Kit (Dual springs) (Low Profile)
VPHRK1	High Response Service Kit
VPLFHAK3	Fixed Operator Adapter Kit (VPO)
VPLH6K2	Manual Operator (6 inch) Handle Kit (hex shaft design) (Standard)
VPMOK2	Manual Operator Kit (Multiple Position) (hex shaft design) (Std) (VP Series)
VPOMOK2	Manual Operator Kit (Multiple Position) (hex shaft design) (Std) (VPO Series)
VPPCK2	Pressure Compensator Kit (Externally Adjust)
VPPCK3	Pressure Compensator Kit (Standard) (Low Profile) (Dual Springs) (Supersedes VPPCK1)
VPPCPK1	Ported Compensator Plug Kit SAE #4
VPPCPK2	Ported Compensator Plug Kit BSPP G-1/4
VPPLX1K1501	Low Profile Pressure Limiter Kit, Single Segment
VPPLX2K1501	Low Profile Pressure Limiter Kit, Multi-Segment, First Position
VPPLX3K1501	Low Profile Pressure Limiter Kit, Multi-Segment, Intermediate Position
VPPLX4K1501	Low Profile Pressure Limiter Kit, Multi-Segment, Final Position
VPLH9K1	Manual Operator (9 inch) Handle Kit

**VP/VPO Series Working Segment (Cont.)****Service Parts (cont.)**

<b>Part No.</b>	<b>Description</b>
VPPLX1K1502	High Profile Pressure Limiter Kit, Single Segment
VPPLX2K1502	High Profile Pressure Limiter Kit, Multi-Segment, First Position
VPPLX3K1502	High Profile Pressure Limiter Kit, Multi-Segment, Intermediate Position
VPPLX4K1502	High Profile Pressure Limiter Kit, Multi-Segment, Final Position
VPWSSK1	Working Segment Seal Kit (All Segment Seals) SAE, Nitrile
VPWSSK2	Working Segment Seal Kit (All Segment Seals) BSPP, Nitrile

**Workport Option Cartridges (VPO Only)**

<b>Part No.</b>	<b>Description</b>
VPOAV1K1	Anticavitation Check
VPOFV1K1	Electric Float Valve (2P-2W, N.C.), 12 volt
VPOFV2K1	Electric Float Valve (2P-2W, N.C.), 24 volt
VPORA1K1*	Relief w/Anticavitation Check (3000 PSI)
VPORV1K1*	Standard Relief Valve (3000 PSI)
VPORVSK1	Port Option Seal Kit
VPOSP1K1	Defeat Plug Kit

\* Relief valves are adjustable.

## VP/VPO Series Working Segment Spool Kits

### VP/VK/VN/VQ Segments

Flow Rating (GPM)	3-POS 3-WAY (C.C.)	3-POS 4-WAY (C.C.)	3-POS 4-WAY (R.O.C.)	3-POS 4-WAY (O.C.M.)
2.5-3.5	VP133K1	VP124K1	VP114K1	VP144K1
3.5-5.0	VP233K1	VP224K1	VP214K1	VP244K1
5.0-7.0	VP333K1	VP324K1	VP314K1	VP344K1
7.0-10.0	VP433K1	VP424K1	VP414K1	VP444K1
10.0-14.0	VP533K1	VP524K1	VP514K1	VP544K1
14.0-20.0	VP633K1	VP624K1	VP614K1	VP644K1
20.0-28.0	VP733K1	VP724K1	VP714K1	VP744K1
28.0-40.0	VP833K1	VP824K1	VP814K1	VP844K1
40.0-55.0	VP933K1	VP924K1	VP914K1	VP944K1

### VPO/VKO/VNO/VQO Segments

Flow Rating (GPM)	3-POS 3-WAY (C.C.)	3-POS 4-WAY (C.C.)	3-POS 4-WAY (R.O.C.)	3-POS 4-WAY (O.C.M.)
2.5-3.5	VPO133K1	VPO124K1	VPO114K1	VPO144K1
3.5-5.0	VPO233K1	VPO224K1	VPO214K1	VPO244K1
5.0-7.0	VPO333K1	VPO324K1	VPO314K1	VPO344K1
7.0-10.0	VPO433K1	VPO424K1	VPO414K1	VPO444K1
10.0-14.0	VPO533K1	VPO524K1	VPO514K1	VPO544K1
14.0-20.0	VPO633K1	VPO624K1	VPO614K1	VPO644K1
20.0-28.0	VPO733K1	VPO724K1	VPO714K1	VPO744K1
28.0-40.0	VPO833K1	VPO824K1	VPO814K1	VPO844K1
40.0-55.0	VPO933K1	VPO924K1	VPO914K1	VPO944K1

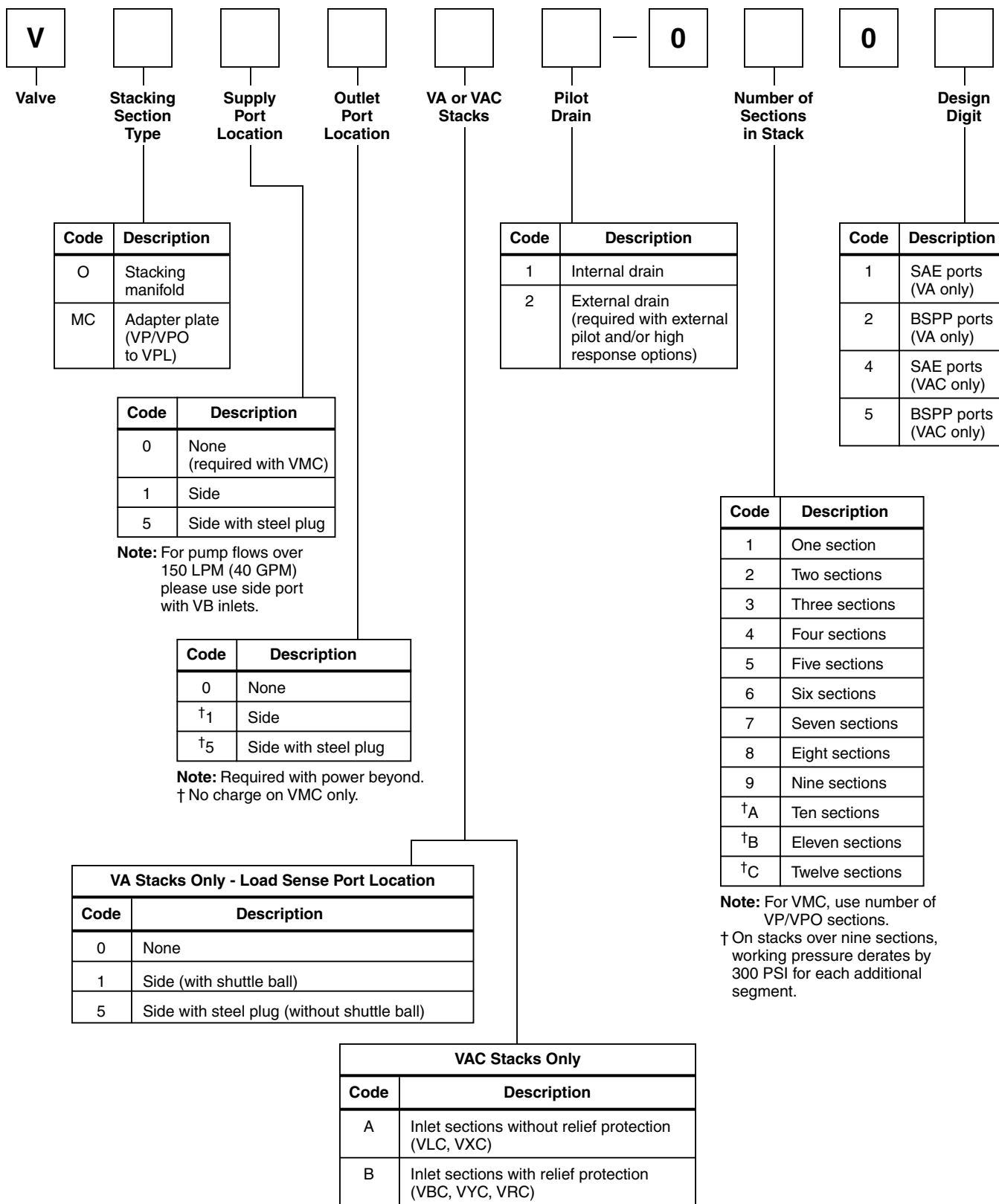
### VW Segments

Flow Rating (GPM)	3-POS 3-WAY (C.C.)	3-POS 4-WAY (C.C.)	3-POS 4-WAY (R.O.C.)	3-POS 4-WAY (O.C.M.)
2.5-3.5	VW133K1	VW124K1	VW114K1	VW144K1
3.5-5.0	VW233K1	VW224K1	VW214K1	VW244K1
5.0-7.0	VW333K1	VW324K1	VW314K1	VW344K1
7.0-10.0	VW433K1	VW424K1	VW414K1	VW444K1
10.0-14.0	VW533K1	VW524K1	VW514K1	VW544K1
14.0-20.0	VW633K1	VW624K1	VW614K1	VW644K1
20.0-28.0	VW733K1	VW724K1	VW714K1	VW744K1
28.0-40.0	VW833K1	VW824K1	VW814K1	VW844K1
40.0-55.0	VW933K1	VW924K1	VW914K1	VW944K1

### VWO Segments

Flow Rating (GPM)	3-POS 3-WAY (C.C.)	3-POS 4-WAY (C.C.)	3-POS 4-WAY (R.O.C.)	3-POS 4-WAY (O.C.M.)
2.5-3.5	VWO133K1	VWO124K1	VWO114K1	VWO144K1
3.5-5.0	VWO233K1	VWO224K1	VWO214K1	VWO244K1
5.0-7.0	VWO333K1	VWO324K1	VWO314K1	VWO344K1
7.0-10.0	VWO433K1	VWO424K1	VWO414K1	VWO444K1
10.0-14.0	VWO533K1	VWO524K1	VWO514K1	VWO544K1
14.0-20.0	VWO633K1	VWO624K1	VWO614K1	VWO644K1
20.0-28.0	VWO733K1	VWO724K1	VWO714K1	VWO744K1
28.0-40.0	VWO833K1	VWO824K1	VWO814K1	VWO844K1
40.0-55.0	VWO933K1	VWO924K1	VWO914K1	VWO944K1

**VP/VPO Series Stacking Plate (for factory assembly only)**





**VP/VPO Series Stacking Plate (for kits only)****Service Parts**

Part No.	Description
VO0K1	Stacking Plate Kit (No Ports) SAE
VO1K1	Stacking Plate Kit (Ports) SAE
VO5K1	Stacking Plate Kit (Ports & Plugs) SAE
VO0K2	Stacking Plate Kit (No Ports) BSPP
VO1K2	Stacking Plate Kit (Ports) BSPP
VO5K2	Stacking Plate Kit (Ports & Plugs) BSPP

**Mid-Adapter Plate: Joining VP/VPO to VPL Series**

Part No.	Description
VMCK4	(SAE, Design 4)
VMCK5	(BSPP, Design 5)

**VP/VPO Stacking Plate****Assembly Kits (Tie Rods, Seal Plates, O-Rings, Shuttle Balls)**

Part No.	Description
VA1K1	1 Section
VA2K1	2 Section
VA3K1	3 Section
VA4K1	4 Section
VA5K1	5 Section
VA6K1	6 Section
VA7K1	7 Section
VA8K1	8 Section
VA9K1	9 Section
VAAK1	10 Section
VABK1	11 Section
VACK1	12 Section

**Assembly Kits — Combination Stacks VPL Side**

Part No.	Description
VALMC2K1	2 Section
VALMC3K1	3 Section
VALMC4K1	4 Section
VALMC5K1	5 Section
VALMC6K1	6 Section
VALMC7K1	7 Section
VALMC8K1	8 Section
VALMC9K1	9 Section
VALMCAK1	10 Section
VALMCBK1	11 Section

**VP/VPO Stacking Plate (Cont.)****Assembly Kits — Combination Stacks VP Side With VBC, VYC & VRC Inlet**

Part No.	Description
VAMCB1K1	1 Section
VAMCB2K1	2 Section
VAMCB3K1	3 Section
VAMCB4K1	4 Section
VAMCB5K1	5 Section
VAMCB6K1	6 Section
VAMCB7K1	7 Section
VAMCB8K1	8 Section
VAMCB9K1	9 Section

**Assembly Kits — Combination Stacks VP Side With VLC & VXC Inlet**

Part No.	Description
VAMCA1K1	1 Section
VAMCA2K1	2 Section
VAMCA3K1	3 Section
VAMCA4K1	4 Section
VAMCA5K1	5 Section
VAMCA6K1	6 Section
VAMCA7K1	7 Section
VAMCA8K1	8 Section
VAMCA9K1	9 Section

**Service Parts**

Part No.	Description
VOSPK2	Seal Plate with loose O-rings and shuttle ball
VOOSK2	Seal Plate Seal Kit (O-rings only)
VTAGK1	Name Tag Labels (50 Pcs)
B1005016	3/16" Shuttle Ball