

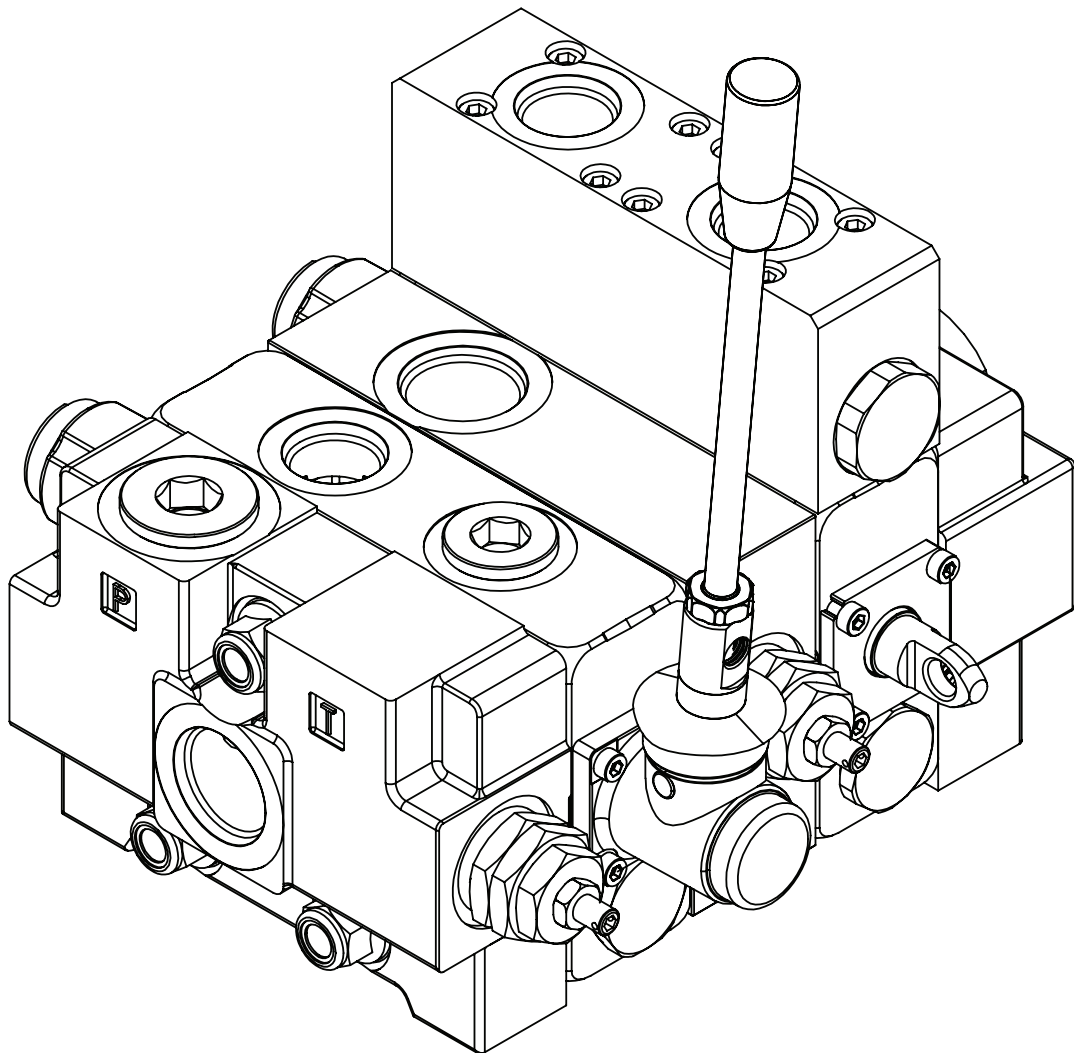


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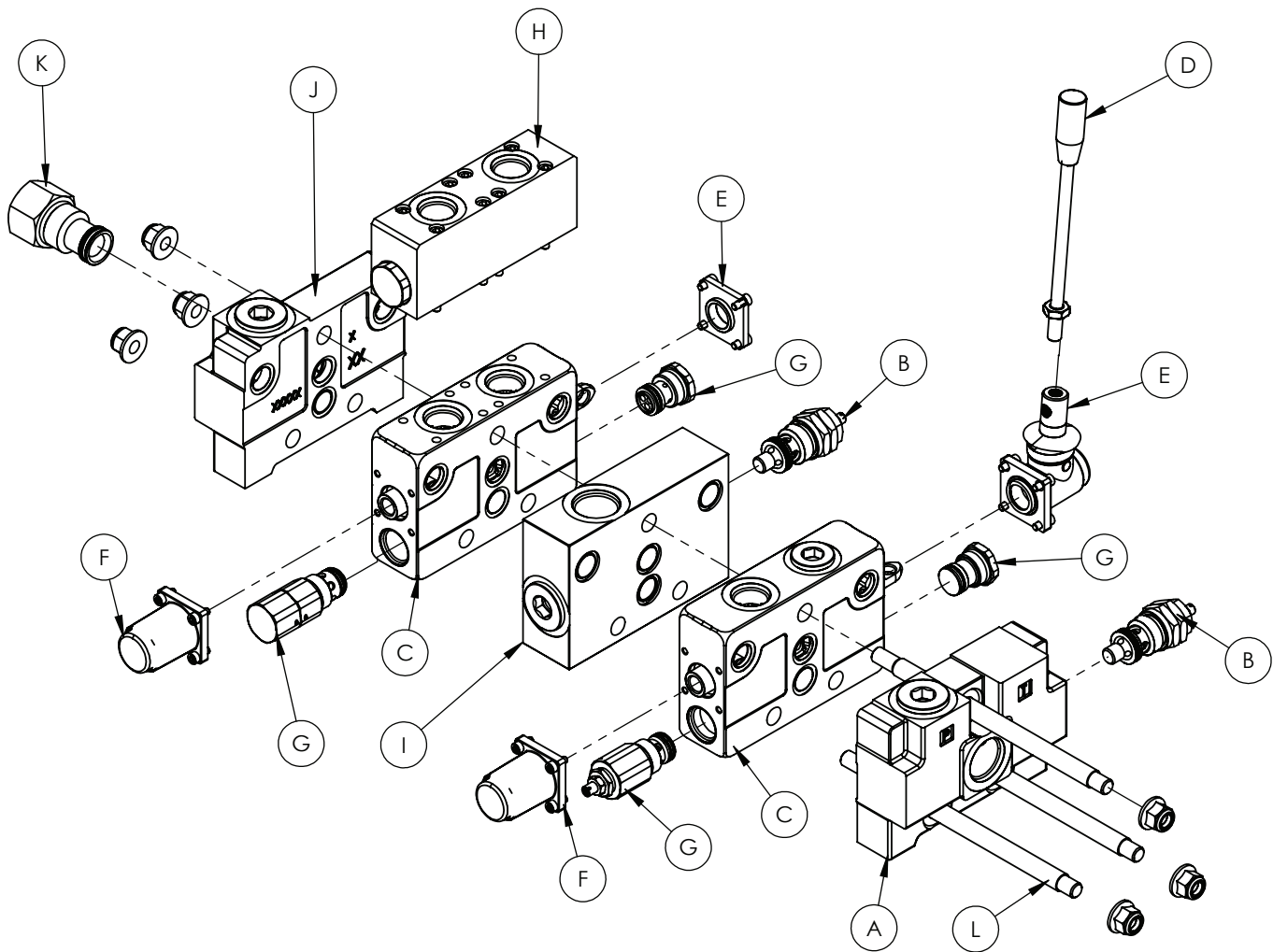
V130 SERIES

OPEN CENTER SECTIONAL DIRECTIONAL CONTROL VALVES

PARTS LIST AND SERVICE MANUAL



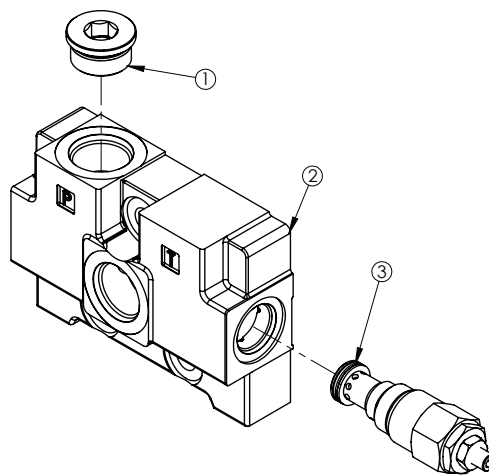
V130 Assembly - Exploded View



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Inlet Sections

V130-A-GI-7SX-****
V130-A-GI-7SP-****



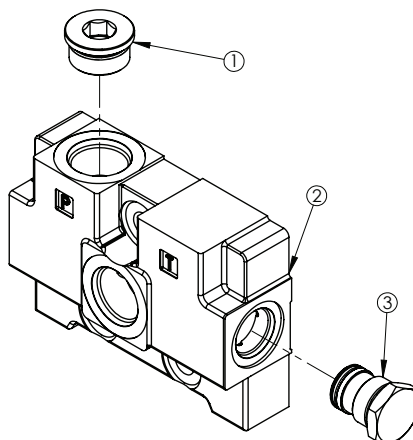
Kit Part Number

V130-A-GI-7SX-****, Inlet with Relief Valve

V130-A-GI-7SP-****, Inlet with Pilot Operated Relief Valve

Item	Description	P/N
1	Steel plug with O-Ring, -16SAE (1 $\frac{5}{16}$ "-12 UN)	HHBP-16Z
2	Inlet with -16SAE (1 $\frac{5}{16}$ "-12 UN) end port by -16SAE (1 $\frac{5}{16}$ "-12 UN) top port, and relief valve set at 2,175 PSI (150 BAR) STANDARD INLET with STANDARD RELIEF VALVE (RV adjustment range 1,175 - 2,900 PSI; 81 - 200 BAR)	V130-A-GI-7SX-N-150
	Inlet with -16SAE (1 $\frac{5}{16}$ "-12 UN) end port by -16SAE (1 $\frac{5}{16}$ "-12 UN) top port, and relief valve set at 3,045 PSI (210 BAR) WITH HIGH PRESSURE RELIEF VALVE (RV adjustment range 2,915 - 5,510 PSI; 201 - 380 BAR)	V130-A-GI-7SX-R-210
3	Inlet relief valve (See page 4 for relief valve information)	N/A
Inlet Notes		
Item 1&3	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)	

V130-A-GI-8SX-XXXX



Kit Part Number

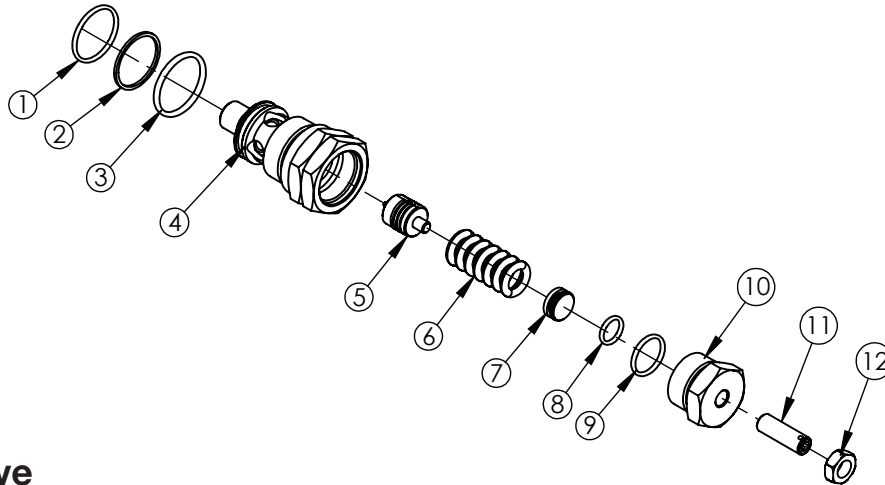
V130-A-GI-8SX-XXXX

Inlet without Relief Valve

Item	Description	P/N
1	Steel plug with O-Ring, -16SAE (1 $\frac{5}{16}$ "-12 UN)	HHBP-16Z
2	Inlet with -16SAE (1 $\frac{5}{16}$ "-12 UN) end port by -16SAE (1 $\frac{5}{16}$ "-12 UN) top port, and NO relief valve	V130-A-GI-8SX-XXXX
3	Steel plug used in place of main relief valve (See page 4 for more information)	V130-AB-X-XXX
Inlet Notes		
Item 1&3	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)	

Inlet Relief Valve

V130-AB-****



Part Number

V130-AB-****

Inlet Relief Valve

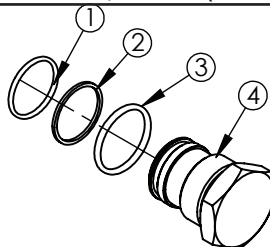
Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.070" x 0.864" (1.78 x 21.95mm)	12T35949	1
2	Back-up ring, parbak 8-020	12T64591	1
3	O-Ring, NBR, 70°Sh, 0.079" x 0.984" (2.00 x 25.00mm)	N/A	1
4	Main RV cartridge body	N/A	1
5	Main RV poppet	N/A	1
6	Main RV spring, code "B" (Adj from: 145 - 1,160 PSI (10 - 80 BAR)	V080130-AB-BSPG	1
	Main RV spring, code "N" (Adj from: 1,175 - 2,900 PSI (81 - 200 BAR)	V080130-AB-NSPG	
	Main RV spring, code "R" (Adj from: 2,915 - 5,510 PSI (201 - 380 BAR)	V080130-AB-RSPG	
	Main RV spring, code "F" (Adj from: 145 - 5,510 PSI (10 - 380 BAR) *Only for 7SP option	N/A	
7	Main RV spring seat	N/A	1
8	O-Ring, NPB, 70°Sh, 0.07" x 0.55" (1.78 x 14.00mm)	12T37021	1
9	O-Ring, NPB, 70°Sh, 0.07" x 0.80" (1.78 x 20.35mm)	12T64457	1
10	Main RV cap	N/A	1
11	Main RV adjusting screw	N/A	1
12	Jam nut	N/A	1

Inlet Relief Valve Notes

Item 4	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)
Item 10	Torque to 30 ± 2.5 ft.lb. (40 ± 3 Nm)
Item 12	Torque to 11 ± 1.5 ft.lb. (15 ± 2 Nm)

Relief Valve Options

Part Number	Cartridge Valve Set Point	Cartridge Valve Adj Range
V130-AB-B080	Set @ 1,160 PSI (80 BAR)	Adj from: 145 - 1,160 PSI (10 - 80 BAR)
V130-AB-N150	Set @ 2,175 PSI (150 BAR)	Adj from: 1,175 - 2,900 PSI (81 - 200 BAR)
V130-AB-R210	Set @ 3,000 PSI (210 BAR)	Adj from: 2,915 - 5,510 PSI (201 - 380 BAR)



V130-AB-X-XXX

Part Number

V130-AB-X-XXX

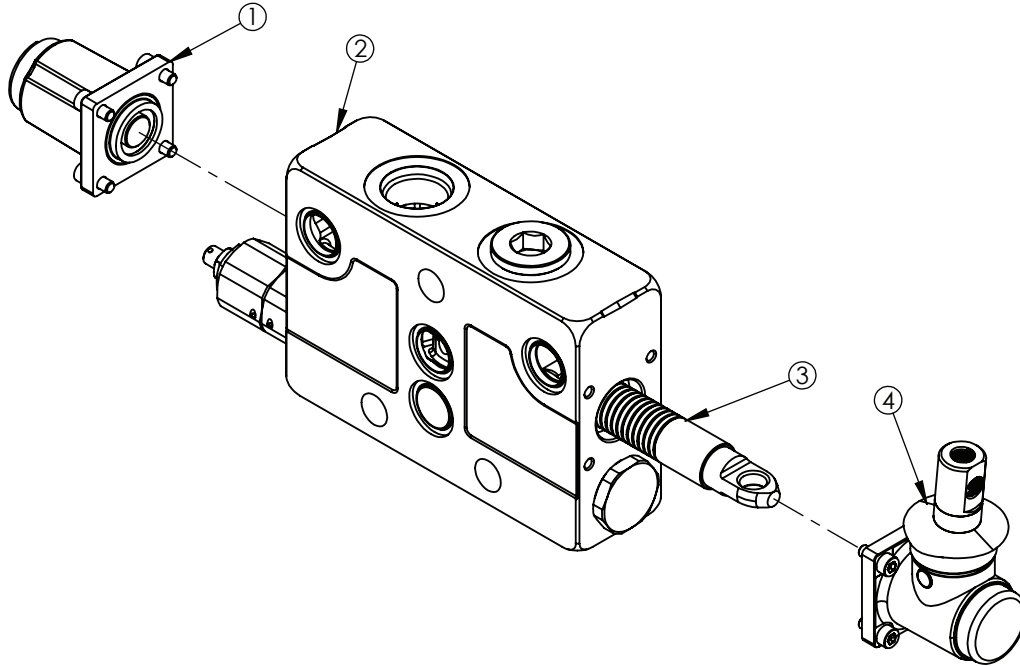
Inlet Plug

Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.07" x 0.86" (1.78 x 21.95mm)	12T35949	1
2	Back-up ring, parbak 8-020	12T64591	1
3	O-Ring, NBR, 70°Sh, 0.079" x 0.984" (2.00 x 25.00mm)	N/A	1
4	Main RV plug steel plug	N/A	1

Inlet Plug Notes

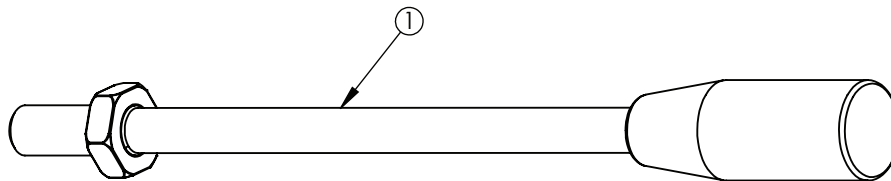
Item 4	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)
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Work Section



Item	Description	P/N
1	Back-cap option (See pages 9-15 for more information)	N/A
2	Work section casting machined for work port options with -12SAE ports	N/A
	Work section casting machined for work port options with -16SAE ports	N/A
3	3P3W, single acting cylinder spool, pressure out "B" port	V130-SPL-AB
	3P4W, single acting cylinder spool	V130-SPL-AC
	3P4W, bi-rotational motor spool (work ports connected to tank in neutral)	V130-SPL-AJ
	4P4W, double acting cylinder with 4th position float spool	V130-SPL-AM
4	Control option (See pages 6 - 8 for more information)	N/A

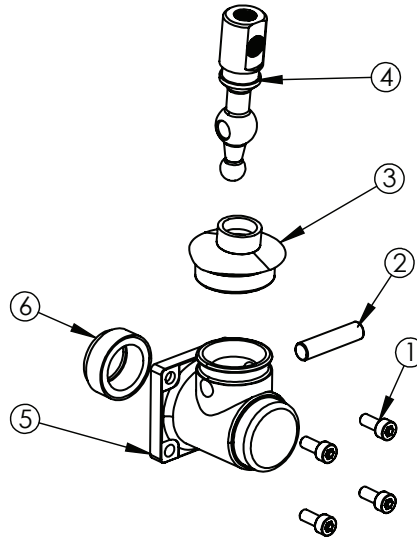
Valve Handle Kit VLVH-O*A-***



Item	Description	P/N
1	8.25in (210mm) lever handle (standard option)	VLVH-01A-210
	8.27in (219mm) lever handle (has lens cap)	VLVH-02A-219

Control Options

V130-CT-AA



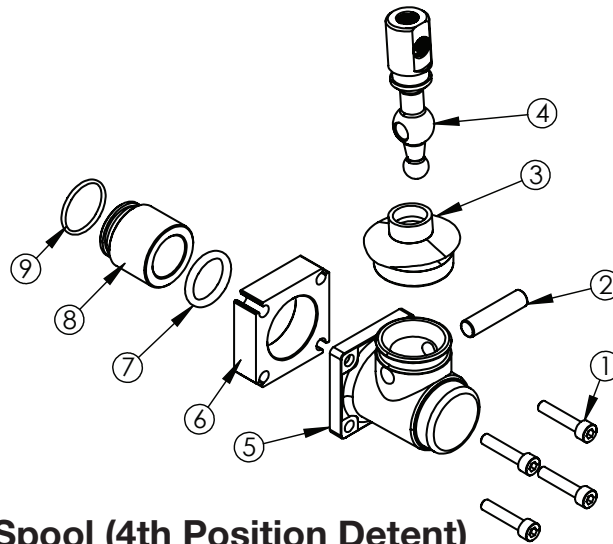
Kit Part Number
V130-CT-AA
Standard Lever Cap

Item	Description	P/N	Qty.
1	Screw, M5 x 12 gr. 8.8 (UNI 5931)	N/A	4
2	Pivot pin	N/A	1
3	Rubber dust boot	N/A	1
4	Handle receiver & spool connector	N/A	1
5	Lever cap control housing	N/A	1
6	Spacer bushing for control options	N/A	1

Control Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
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V130-CT-AB

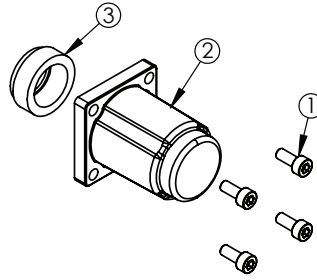


Kit Part Number
V130-CT-AB
Lever Cap for Float Spool (4th Position Detent)

Item	Description	P/N	Qty.
1	Screw, M5 x 25 gr. 8.8 (UNI 5931)	N/A	4
2	Pivot pin	N/A	1
3	Rubber dust boot	N/A	1
4	Handle receiver & spool connector	N/A	1
5	Lever cap control housing	N/A	1
6	Spacer plate used for 4 position spools	N/A	1
7	O-Ring, NBR, 90°Sh, 0.139" x 0.796" (3.53 x 20.22mm)	12T64571	1
8	Spacer bushing for control option	N/A	1
9	O-Ring, NBR, 70°Sh, 0.070" x 0.864" (1.78 x 21.95mm)	12T35949	1

Control Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
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Kit Part Number

V130-CT-AE

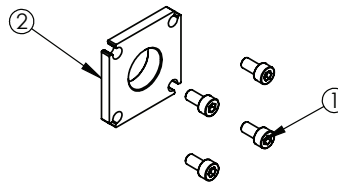
Spool Cover for Back-cap Control

Item	Description	P/N	Qty.
1	Screw, M5 x 12 gr. 8.8 (UNI 5931)	N/A	4
2	Spool cover for control option	N/A	1
3	Spacer bushing for control options	N/A	1

Control Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
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V130-CT-AJ



Kit Part Number

V130-CT-AJ

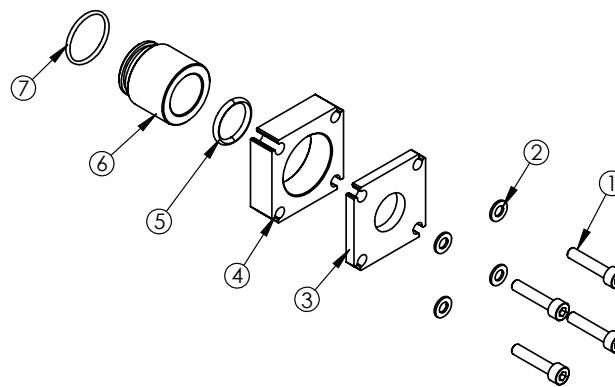
Spool Eye Only for Direct Connection

Item	Description	P/N	Qty.
1	Screw, M5 x 10 gr. 8.8 (UNI 5931)	N/A	4
2	Control plate and spool O-Ring retainer	N/A	1

Control Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
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V130-CT-AK



Kit Part Number

V130-CT-AK

Spool Eye Only for Float Spool (4th Position Detent)

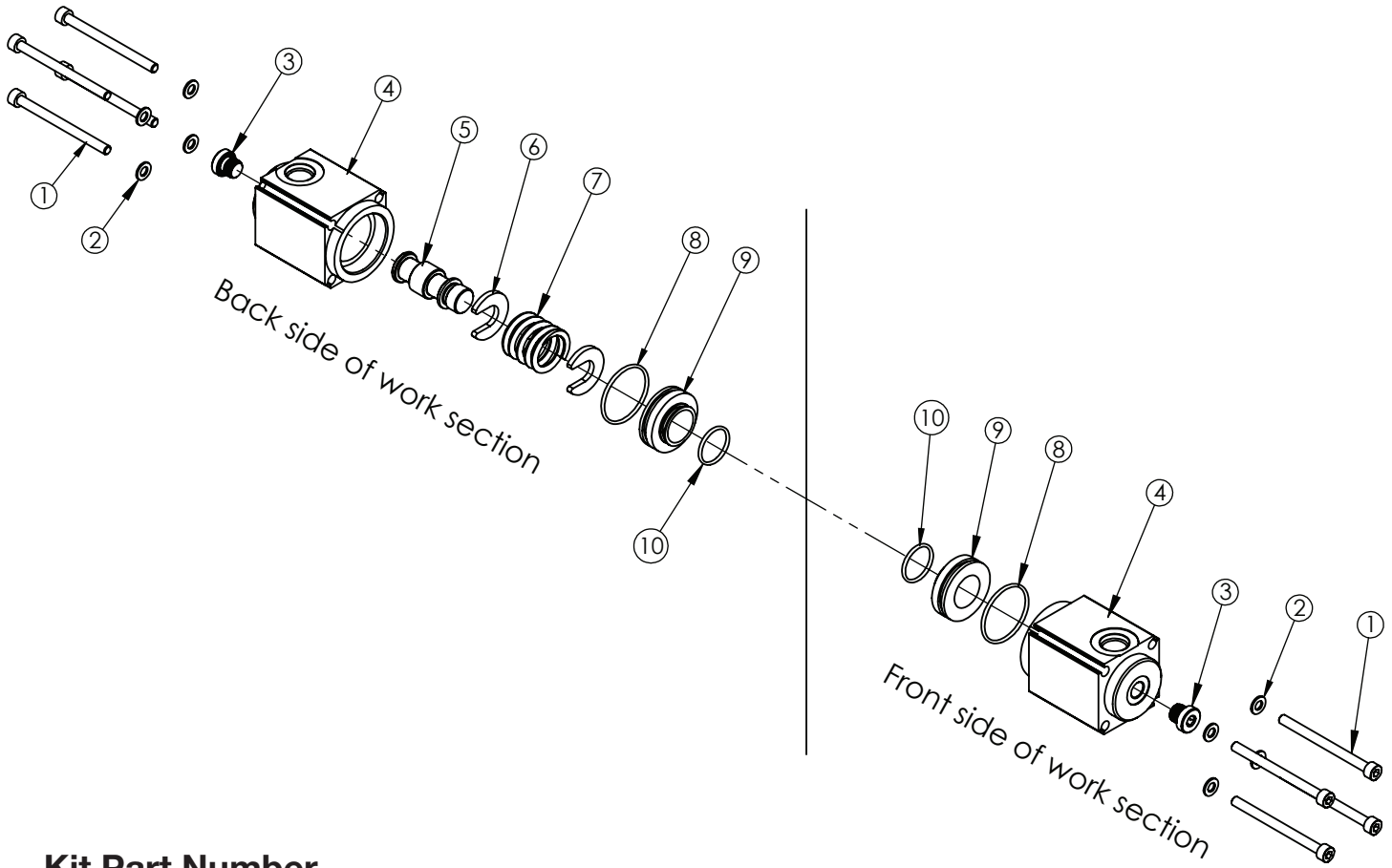
Item	Description	P/N	Qty.
1	Screw, M5 x 25 gr. 8.8 (UNI 5931)	N/A	4
2	Washer, 5mm diameter	N/A	4
3	Control plate	N/A	1
4	Spacer plate used for 4 position spools	N/A	1
5	O-ring, NBR, 90°Sh, 0.139" x 0.796" (3.53 x 20.22mm)	12T64571	1
6	Spacer bushing	N/A	1
7	O-Ring, NBR, 70°Sh, 0.070" x 0.864" (1.78 x 21.95mm)	12T35949	1

Control Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
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Control Options

V130-CT-BG



Kit Part Number

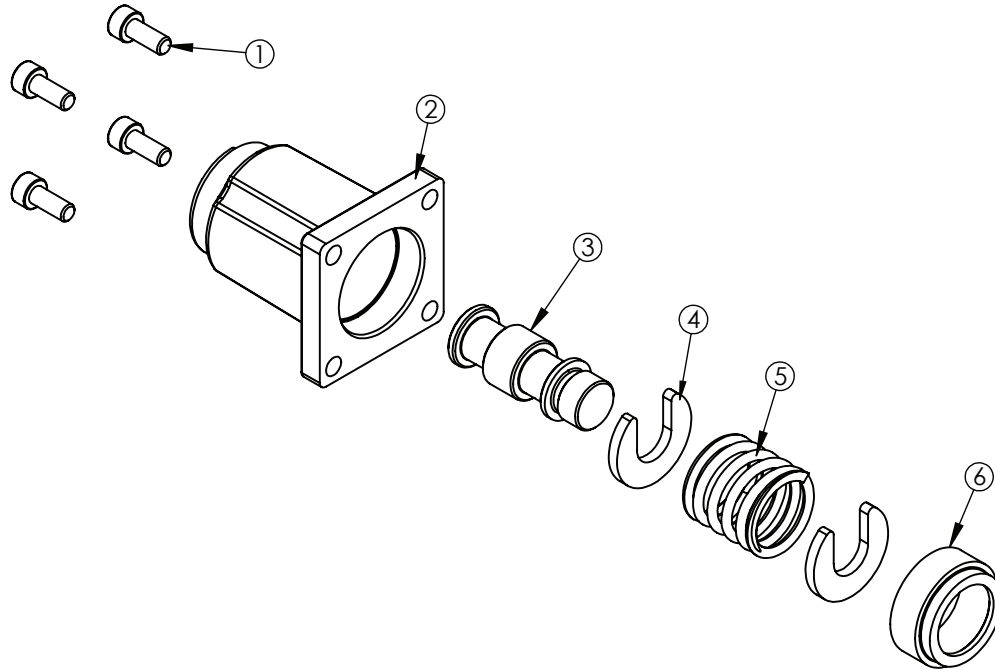
V130-CT-BG

Low Pressure, Dual Sided, Hydraulic Control

Item	Description	P/N	Qty.
1	Screw, M5 x 65 gr. 8.8 (UNI 5931)	N/A	8
2	Washer, 5mm diameter	N/A	8
3	Pressure gauge port plug w/O-Ring, 1/8" GAS thread	N/A	2
4	Hydraulic control caps	N/A	2
5	Back-cap spool connector	N/A	1
6	Washer for spring compressing	N/A	2
7	Positioning spring	N/A	1
8	O-Ring, NBR, 70°Sh, 0.070" x 1.176" (1.78 x 29.87mm)	N/A	2
9	Spacer bushing	N/A	2
10	O-Ring, NBR, 70°Sh, 0.070" x 0.864" (1.78 x 21.95mm)	12T35949	2

Control Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
Item 3	Torque to 7.4 ± 0.4 ft.lb. (10 ± 0.5 Nm)
Item 5	Clean the threads on item 5 and in the spool seat with a degreasing product.
	<i>For parallel and single spools</i>
	Apply 2 drops of Loctite 242 and torque item 5 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool
	<i>For series and series-parallel spools</i>
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool and apply 1 drop of Loctite 242. Be sure to avoid applying Loctite to the O-Ring area.
	Torque item 5 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
Be sure not to scratch or damage the spool.	



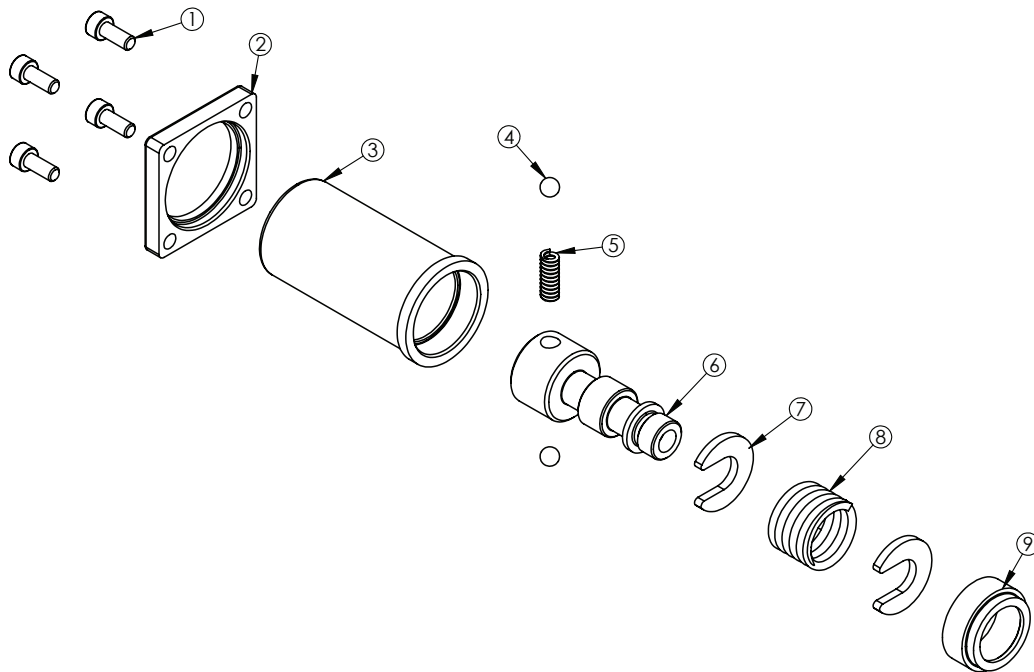
Kit Part Number
V130-BC-01
Standard 3 Position, Spring Return

Item	Description	P/N	Qty.
1	Screw, M5 x 12 gr. 8.8 (UNI 5931)	N/A	4
2	Back-cap housing for standard spring return	N/A	1
3	Back-cap spool connector for standard spring return	N/A	1
4	Standard washer for spring compressing	N/A	2
5	Standard positioning spring	N/A	1
6	Standard spacer bushing	N/A	1

Back-cap Notes	
Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
Item 3	Clean the threads on item 3 and in the spool seat with a degreasing product.
	For parallel and single spools
	Apply 2 drops of Loctite 242 and torque item 3 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool
	For series and series-parallel spools
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool and apply 1 drop of Loctite 242. Be sure to avoid applying Loctite to the O-Ring area.
	Torque item 3 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
Be sure not to scratch or damage the spool.	
Item 5	Apply multi-purpose grease to the spring prior to assembly

Back-cap Positioners

V130-BC-06
V130-BC-07



Kit Part Number

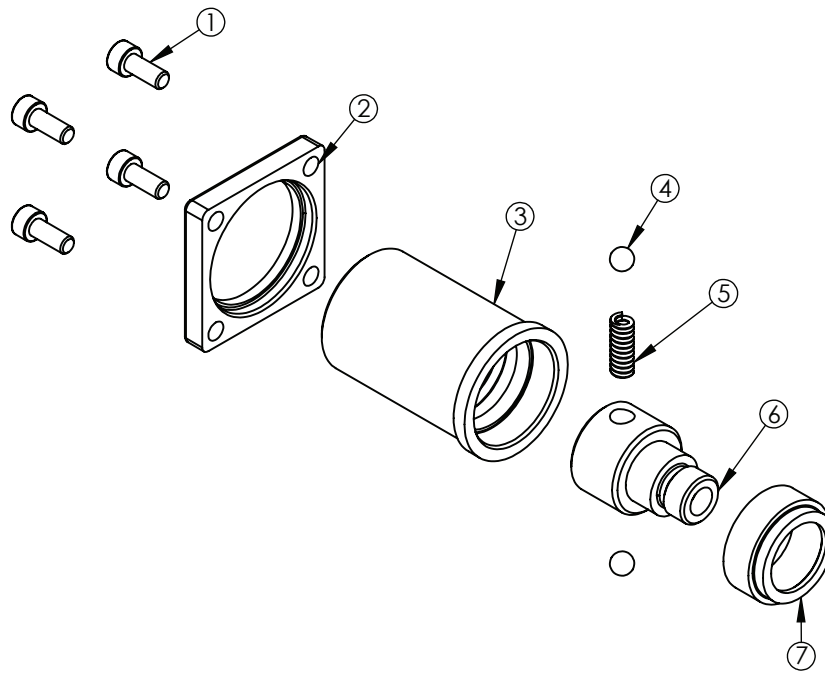
V130-BC-06, Detent Spool “IN” (Position 1) Spring Spool “OUT” (Position 2)

V130-BC-07, Spring Spool “IN” (Position 1) Detent Spool “OUT” (Position 2)

Item	Description	P/N	Qty.
1	Screw, M5 x 12 gr. 8.8 (UNI 5931)	N/A	4
2	Back-cap mounting plate	N/A	1
3	Back-cap housing for detent “IN”, spring “OUT”, option 06	N/A	1
	Back-cap housing for detent “OUT”, spring “IN”, option 07	N/A	1
4	Detent ball	N/A	2
5	Detent spring	N/A	1
6	Back-cap spool connector for detent “IN”, spring “OUT”, option 06	N/A	1
	Back-cap spool connector for detent “OUT”, spring “IN”, option 07	N/A	1
7	Standard washer for spring compressing	N/A	2
8	Standard positioning spring	N/A	1
9	Standard spacer bushing	N/A	1

Back-cap Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
Item 4&5	Generously apply multi-purpose grease to the spring and detent balls prior to assembly to aid in the assembly process
Item 6	Clean the threads on item 6 and in the spool seat with a degreasing product.
	<i>For parallel and single spools</i>
	Apply 2 drops of Loctite 242 and torque item 6 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool
	<i>For series and series-parallel spools</i>
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool and apply 1 drop of Loctite 242.
	Be sure to avoid applying Loctite to the O-Ring area.
	Torque item 6 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
Be sure not to scratch or damage the spool.	
Item 8	Apply multi-purpose grease to the spring prior to assembly

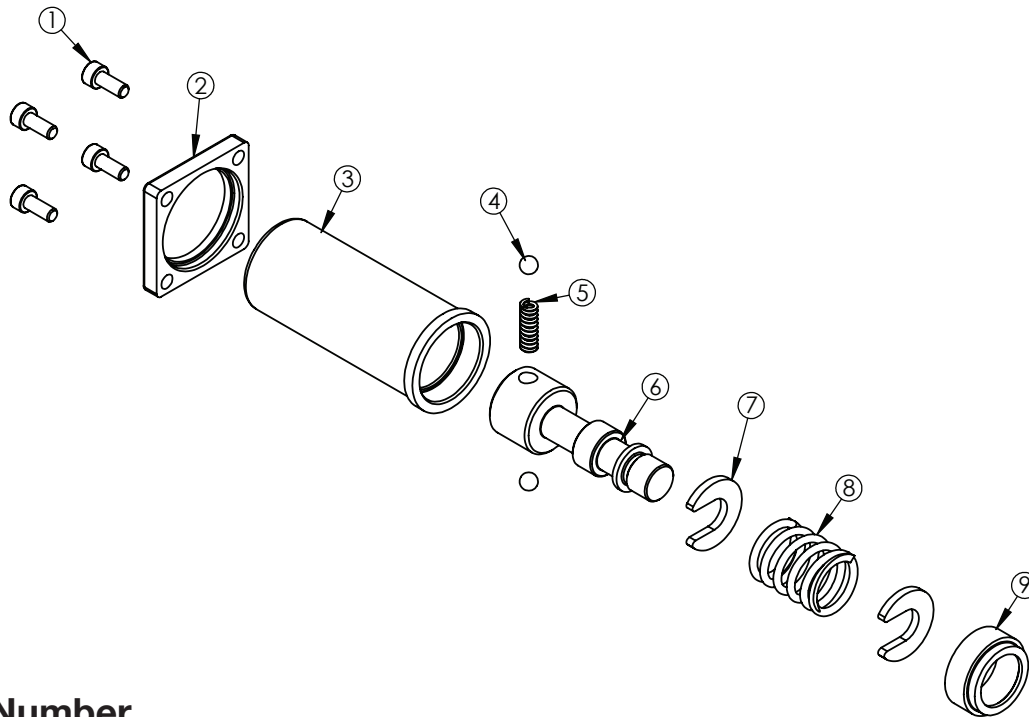


Kit Part Number
V130-BC-08
3 Position Detent

Item	Description	P/N	Qty.
1	Screw, M5 x 12 gr. 8.8 (UNI 5931)	N/A	4
2	Back-cap mounting plate	N/A	1
3	Back-cap housing for 3 position detent	N/A	1
4	Detent ball	N/A	2
5	Detent spring	N/A	1
6	Back-cap spool connector for 3 position detent	N/A	1
7	Standard spacer bushing	N/A	1

Back-cap Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
Item 4&5	Generously apply multi-purpose grease to the spring and detent balls prior to assembly to aid in the assembly process
Item 6	Clean the threads on item 6 and in the spool seat with a degreasing product. <i>For parallel and single spools</i>
	Apply 2 drops of Loctite 242 and torque item 6 to 30 ± 1.5 ft.lb. (40 ± 2 Nm). Be sure not to scratch or damage the spool
	<i>For series and series-parallel spools</i>
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool, and apply 1 drop of Loctite 242. Be sure to avoid applying Loctite to the O-Ring area.
	Torque item 6 to 30 ± 1.5 ft.lb. (40 ± 2 Nm). Be sure not to scratch or damage the spool.



Kit Part Number

V130-BC-12

3 Position, Spring Return with 4th Position Detent

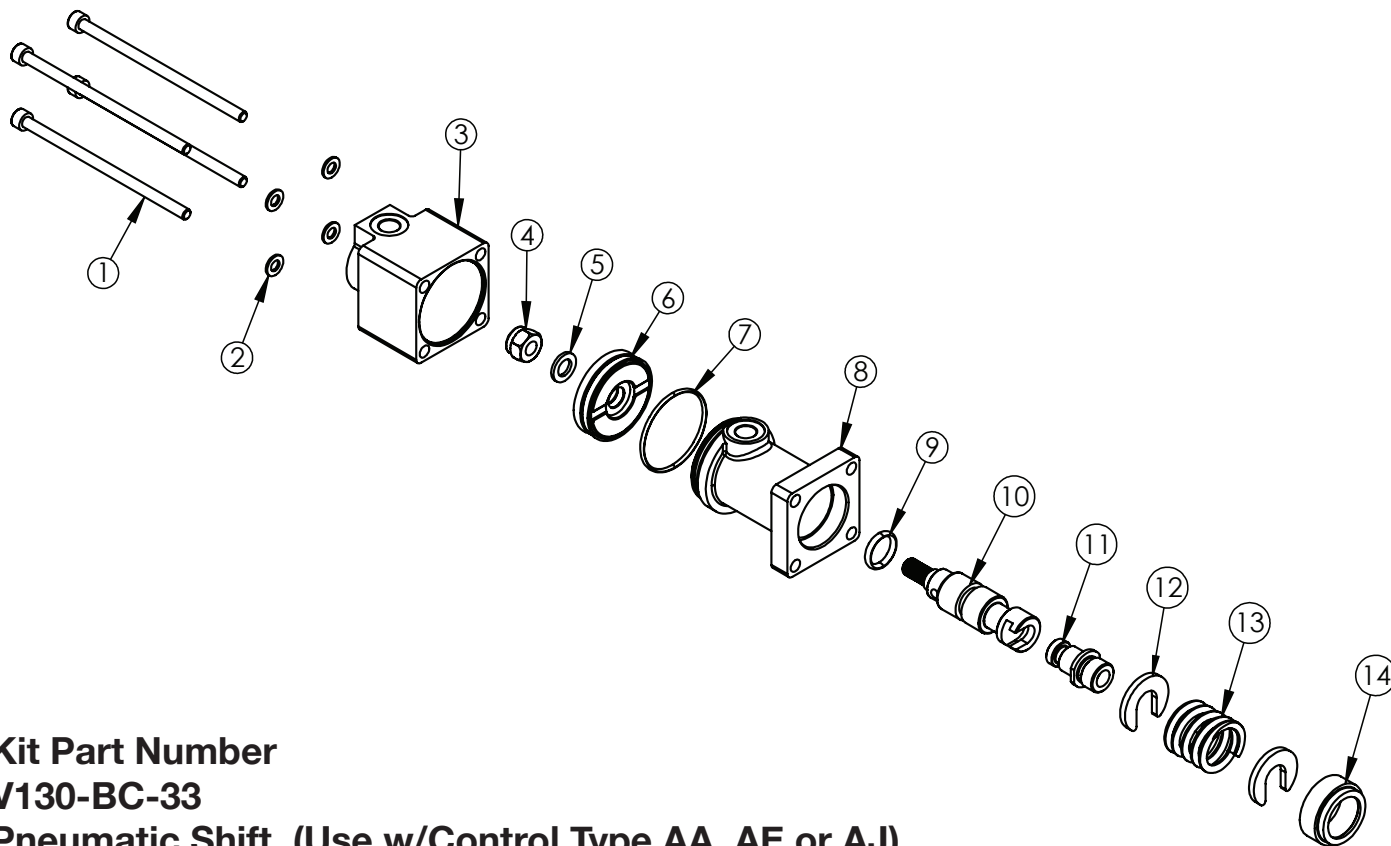
Item	Description	P/N	Qty.
1	Screw, M5 x 12 gr. 8.8 (UNI 5931)	N/A	4
2	Back-cap mounting plate	N/A	1
3	Back-cap housing for float spool (4th position detent)	N/A	1
4	Detent ball	N/A	2
5	Detent spring	N/A	1
6	Back-cap spool connector for float spool (4th position detent)	N/A	1
7	Standard washer for spring compressing	N/A	2
8	Standard positioning spring	N/A	1
9	Standard spacer bushing	N/A	1

Back-cap Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
Item 4&5	Generously apply multi-purpose grease to the spring and detent balls prior to assembly to aid in the assembly process
Item 6	Clean the threads on item 6 and in the spool seat with a degreasing product.
	<i>For parallel and single spools</i>
	Apply 2 drops of Loctite 242 and torque item 6 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool
	<i>For series and series-parallel spools</i>
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool, and apply 1 drop of Loctite 242.
	Be sure to avoid applying Loctite to the O-Ring area.
Item 8	Apply multi-purpose grease to the spring prior to assembly

Back-cap Positioners

V130-BC-33



Kit Part Number

V130-BC-33

Pneumatic Shift, (Use w/Control Type AA, AE or AJ)

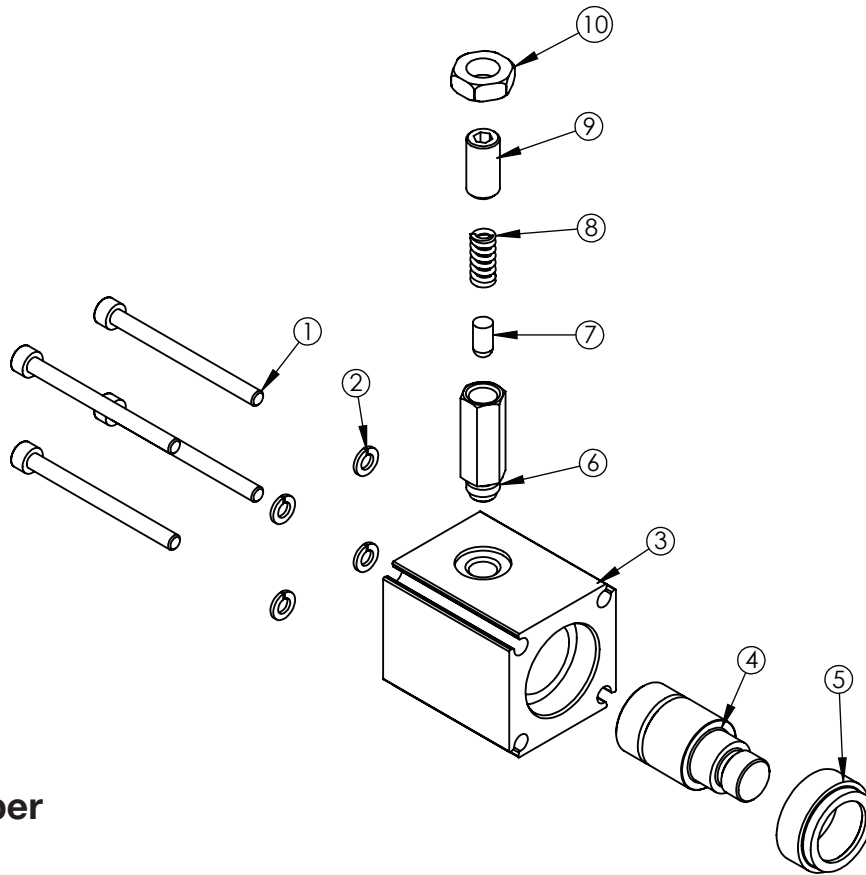
Item	Description	P/N	Qty.
1	Screw, M5 x 100 gr. 8.8 (UNI 5931)	N/A	4
2	Washer, 5mm ID x 10MM OD	N/A	4
3	Pneumatic control cylinder housing	N/A	1
4	Lock nut, M8 thread	N/A	1
5	Washer, 8mm ID x 14mm OD	N/A	1
6	Piston for pneumatic control	N/A	1
7	O-Ring, NBR, 70°Sh, 0.070" x 1.36" (1.78 x 34.65mm)	12T36486	1
8	Back-cap housing for pneumatic control	N/A	1
9	O-Ring, NBR, 90°Sh, 0.10" x 0.49" (2.62 x 12.37mm)	12T36526	1
10	Piston rod for pneumatic cylinder	N/A	1
11	Back-cap spool connector for pneumatic control	N/A	1
12	Standard washer for spring compressing	N/A	2
13	Positioning spring for pneumatic control (proportional or on/off)	N/A	1
14	Standard spacer bushing	N/A	1

Back-cap Notes

Item 1	Torque to 2.2 ± 0.15 ft.lb. (3 ± 0.2 Nm)
Item 4	Torque to 14.7 ± 2.2 ft.lb. (20 ± 3 Nm)
Item 6	Lightly apply multi-purpose grease to the piston prior to assembly
Item 11	Clean the threads on item 11 and in the spool seat with a degreasing product.
	<i>For parallel and single spools</i>
	Apply 2 drops of Loctite 242 and torque item 11 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool
	<i>For series and series-parallel spools</i>
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool and apply 1 drop of Loctite 242.
	Be sure to avoid applying Loctite to the O-Ring area.
Torque item 11 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).	
Be sure not to scratch or damage the spool.	
Item 13	Apply multi-purpose grease to the spring prior to assembly

Back-cap Positioners

V130-BC-41



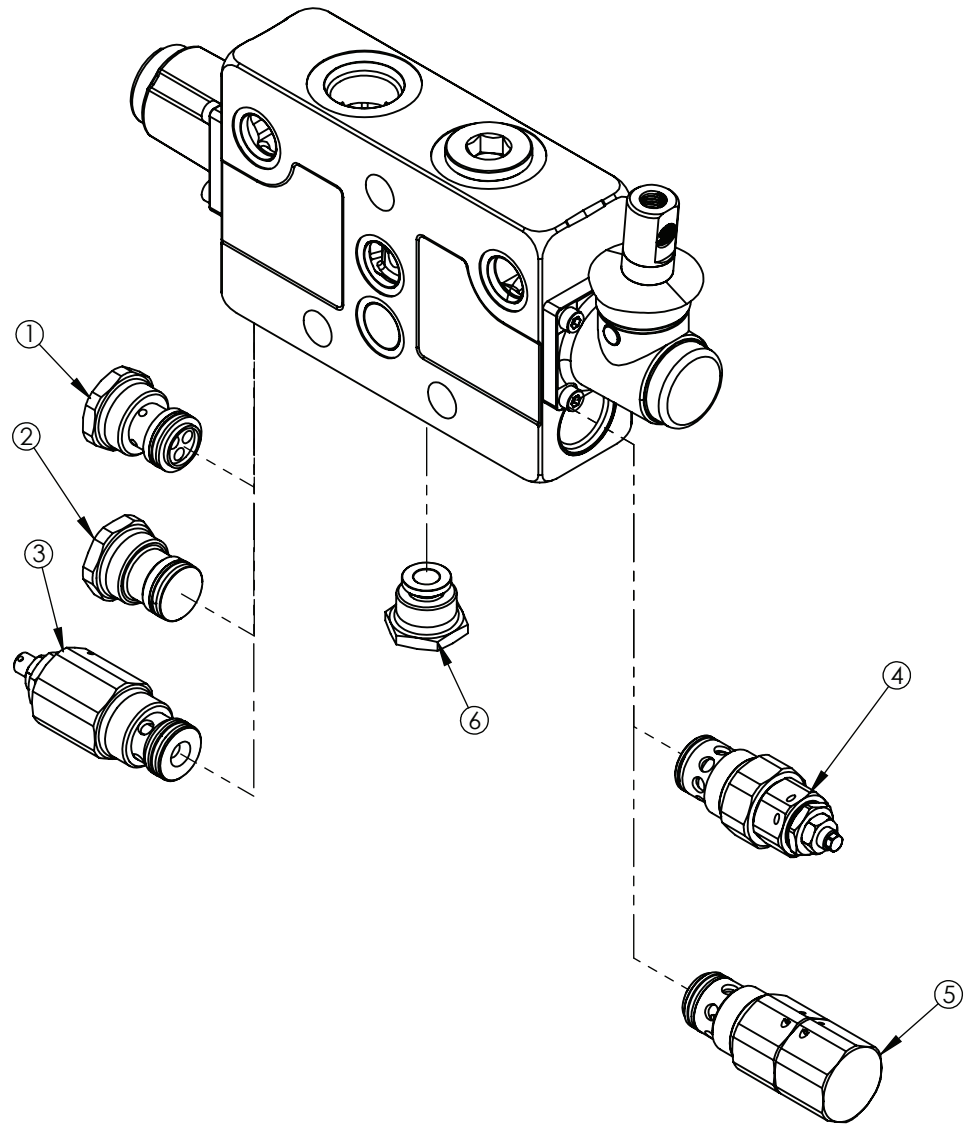
Kit Part Number
V130-BC-41
Friction Detent

Item	Description	P/N	Qty.
1	Screw, M5 x 60 gr. 8.8 (UNI 5931)	N/A	4
2	Lock Washer, 5mm ID	N/A	4
3	Back-cap housing for friction detent	N/A	1
4	Back-cap spool connector for friction detent	N/A	1
5	Standard spacer bushing	N/A	1
6	Lock nut, 8M thread	N/A	1
7	Detent housing for friction detent	N/A	1
8	Detent spring for friction detent	N/A	1
9	Adjustable set screw for friction detent (M10 x 45mm)	N/A	1
10	Jam nut for friction detent (M10 thread)	N/A	1

Back-cap Notes

Item 1	Torque to 4.4 ± 0.3 ft.lb. (6 ± 0.4 Nm)
Item 4	Clean the threads on item 4 and in the spool seat with a degreasing product.
	<i>For parallel and single spools</i>
	Apply 2 drops of Loctite 242 and torque item 4 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool
	<i>For series and series-parallel spools</i>
	Assemble the O-Ring (90°Sh, 0.070" x 0.426") supplied with the spool, and apply 1 drop of Loctite 242. Be sure to avoid applying Loctite to the O-Ring area.
Item 4	Torque item 4 to 30 ± 1.5 ft.lb. (40 ± 2 Nm).
	Be sure not to scratch or damage the spool.
Item 8	Apply multi-purpose grease to the spring prior to assembly
Item 10	Torque to 14.7 ± 2.2 ft.lb. (20 ± 3 Nm)

Cartridge Valves



Cartridge Valves

Item	Description	Page	Qty.
1	V130-W04-XXXX	16	1 or 2
2	V130-WCX-XXXX	16	1 or 2
3	V130-W30-**** (See page 16 for RV setting options)	17	1 or 2
4	V130-W66-**** (See page 17 for Pilot operated RV + AC for setting options)	16	1 or 2
5	V130-W33-**** (See page 18 for AC setting options)	18	1 or 2
6	V130-CHK-XXXX	18	1

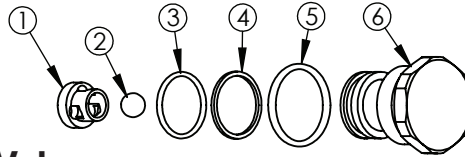
Cartridge Notes

Item 1-5 Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)

Cartridge Valves

V130-W04-XXXX

Part Number
V130-W04-XXXX



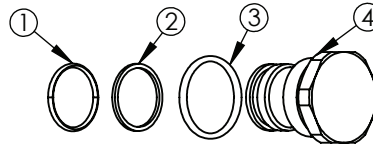
Work Port Anti-Cavitation Valve

Item	Description	P/N	Qty.
1	Anti-cavitation check ball spacer	N/A	1
2	Anti-cavitation check ball, 5/16" diameter, S2 class A	N/A	1
3	O-Ring, NBR, 70°Sh, 0.07" x 0.74" (1.78 x 18.77mm)	12T36879	1
4	Back-up ring, parbak 8-018	12T64590	1
5	O-Ring, NBR, 70°Sh, 0.09" x 0.95" (2.40 x 23.30mm)	12T64458	1
6	Anti-cavitation valve body	N/A	1

Relief Valve Notes

Item 1 Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)

Part Number
V130-WCX-XXXX
Blanking Plug

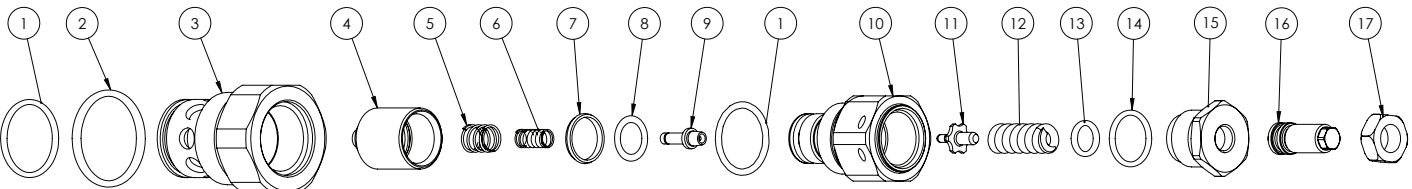


V130-WCX-XXXX

Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.07" x 0.74" (1.78 x 18.77mm)	12T36879	1
2	Back-up ring, parbak 8-018	12T64590	1
3	O-Ring, NBR, 70°Sh, 0.09" x 0.95" (2.40 x 23.30mm)	12T64458	1
4	Work port option plug	N/A	1

Relief Valve Notes

Item 1 Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)



V130-W66-F125

Part Number
V130-W66-F125
Work Port RV + AC (Full Flow Pilot Operated)

Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.07" x 0.74" (1.78 x 18.77mm)	12T36879	2
2	O-Ring, NBR, 70°Sh, 0.09" x 0.95" (2.40 x 23.30mm)	12T64458	1
3	Relief valve body	N/A	1
4	Poppet seal	N/A	1
5	Guide spring	N/A	1
6	Slider spring	N/A	1
7	O-Ring retainer	N/A	1
8	O-Ring, NBR, 70°Sh, 0.07" x 0.25" (1.78 x 6.33mm)	N/A	1
9	Anti-cavitation valve dart	N/A	1
10	Pilot operated relief valve body	N/A	1
11	Relief valve dart	N/A	1
12	Pilot operated RV "F" spring adj. from 725 - 5,800 PSI (50 - 400 BAR)	N/A	1
13	O-Ring, NBR, 70°Sh, 0.07" x 0.43" (1.78 x 10.82mm)	12T64453	1
14	O-Ring, NBR, 70°Sh, 0.07" x 0.49" (1.78 x 12.42mm)	12T36526	1
15	Pilot operated relief valve plug	N/A	1
16	Relief valve adjustment screw	N/A	1
17	Work port RV jam nut	N/A	1

Relief Valve Notes

Item 3 Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)

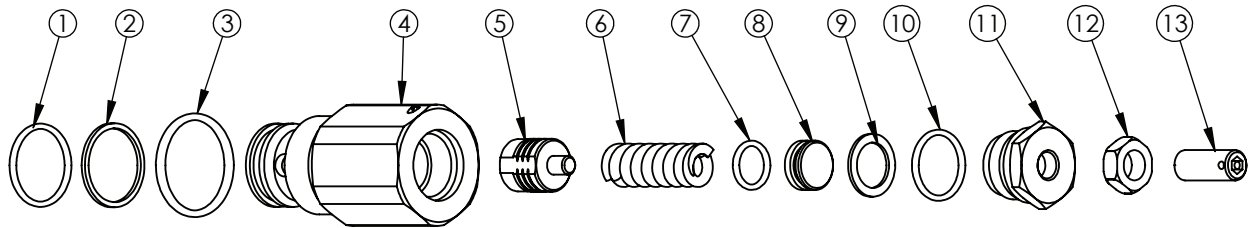
Item 10 Torque to 52 ± 5 ft.lb. (38 ± 3 Nm)

Item 15 Torque to 15 ± 2 ft.lb. (20 ± 3 Nm)

Item 17 Torque to 20 ± 3 ft.lb. (15 ± 2 Nm)

Cartridge Valves

V130-W30-****



Part Number
V130-W30-****

Work Port Relief Valve

Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.70" x 0.74" (1.78 x 18.77mm)	12T64458	1
2	Back-up ring, parbak 8-018	12T64590	1
3	O-Ring, NBR, 70°Sh, 0.09" x 0.95" (2.40 x 23.30mm)	12T36879	1
4	Work port relief valve cartridge body	N/A	1
5	Relief valve cone	N/A	1
6	Work port RV spring , code "B" (Adj from: 435 - 1,160 PSI (30 - 80 BAR))	V130-W30-BSPG	1
	Work port RV spring, code "N" (Adj from: 1,175 - 2,900 PSI (81 - 200 BAR))	V130-W30-NSPG	
	Work port RV spring, code "R" (Adj from: 2,915 - 5,075 PSI (201 - 350 BAR))	V130-W30-RSPG	
7	O-Ring, NBR, 70°Sh, 0.07" x 0.36" (1.78 x 9.25mm)	12T36881	1
8	Spring seat for work port relief valve	N/A	1
9	Washer for work port relief valve	N/A	1
10	O-Ring, NBR, 70°Sh, 0.07" x 0.61" (1.78 x 15.60mm)	12T64426	1
11	Plug for work port relief valve	N/A	1
12	Work port RV jam nut	N/A	1
13	Work port relief valve adjusting screw	N/A	1

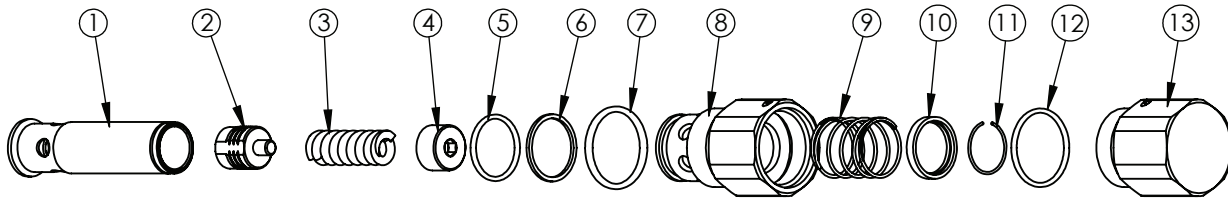
Work Section Notes

Item 4	Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)
Item 11	Torque to 15 ± 2 ft.lb. (20 ± 3 Nm)
Item 12	Torque to 11 ± 1.5 ft.lb. (15 ± 2 Nm)

Work Port Relief Options		
Part Number	Cartridge Valve Set Point	Cartridge Valve Adj Range
V130-W30-B070	Set @ 1,015 PSI (70 BAR)	Adj Range: 435 - 1,160 PSI (30 - 80 BAR)
V130-W30-N125	Set @ 1,812 PSI (125 BAR)	Adj Range: 1,175 - 2,900 PSI (81 - 200 BAR)
V130-W30-N150	Set @ 2,175 PSI (150 BAR)	
V130-W30-N170	Set @ 2,465 PSI (170 BAR)	
V130-W30-R210	Set @ 3,045 PSI (210 BAR)	Adj Range: 2,915 - 5,075 PSI (201 - 350 BAR)

Cartridge Valves

V130-W33-****



Part Number

V130-W33-****

Work Port Relief Valve & Anti-Cavitation Valve

Item	Description	P/N	Qty.
1	Anti-cavitation valve	N/A	1
2	Relief valve cone	N/A	1
3	Work port RV spring, code "B" (Adj range: 435 - 1,160 PSI (30 - 80 BAR))	V130-W30-BSPG	1
	Work port RV spring, code "N" (Adj range: 1,175 - 2,900 PSI (81 - 200 BAR))	V130-W30-NSPG	
	Work port RV spring, code "R" (Adj range: 2,915 - 5,075 PSI (201 - 350 BAR))	V130-W30-RSPG	
4	Work port relief valve adjusting screw, anti-cavitation + RV version	N/A	1
5	O-Ring, NBR, 70°Sh, 0.07" x 0.74" (1.78 x 18.77mm)	12T36879	1
6	Back-up ring, parbak 8-018	N/A	1
7	O-Ring, NBR, 70°Sh, 0.09" x 0.95" (2.40 x 23.30mm)	12T64458	1
8	Work port relief valve cartridge body	N/A	1
9	Anti-cavitation valve spring	N/A	1
10	Washer for spring wire	N/A	1
11	Spring wire	N/A	1
12	O-Ring, NBR, 70°Sh, 0.07" x 0.86" (1.78 x 21.95mm)	12T35949	1
13	Plug for anti-cavitation valve	N/A	1

Work Section Notes

Item 8	Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)
Item 13	Torque to 52 ± 2.2 ft.lb. (38 ± 3 Nm)

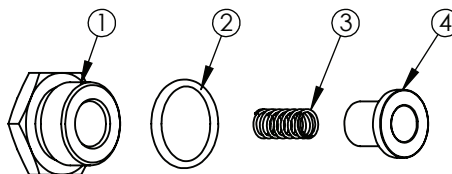
Work Port Relief Options		
Part Number	Cartridge Valve Set Point	Cartridge Valve Adj Range
V130-W33-B070	Set @ 1,015 PSI (70 BAR)	Adj from: 435 - 1,160 PSI (30 - 80 BAR)
V130-W33-N125	Set @ 1,812 PSI (125 BAR)	Adj from: 1,175 - 2,900 PSI (81 - 200 BAR)
V130-W33-N150	Set @ 2,175 PSI (150 BAR)	
V130-W33-N170	Set @ 2,465 PSI (170 BAR)	
V080-W30-R210	Set @ 3,045 PSI (210 BAR)	Adj from: 2,915 - 5,075 PSI (201 - 350 BAR)

V130-CHK-XXXX

Part Number

V130-CHK-XXXX

Work Port Check Valve

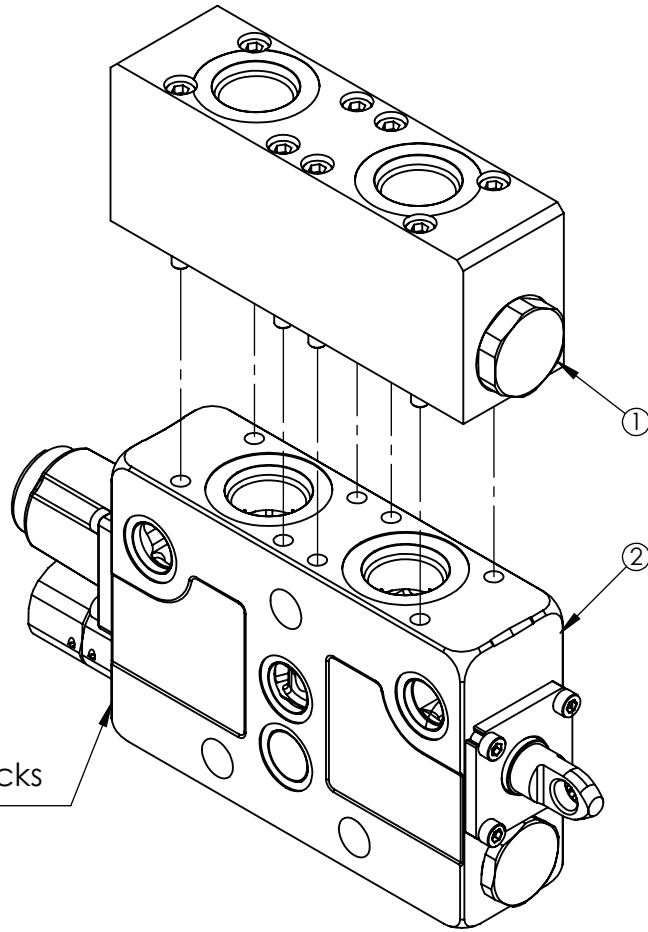


Item	Description	P/N	Qty.
1	Plug for check valve	N/A	1
2	O-Ring, NBR, 70°Sh, 0.079" x 0.787" (2.00 x 20.00mm)	12T64459	1
3	Spring for check valve	N/A	1
4	Check valve	N/A	1

Work Section Notes

Item 1	Torque to 29.5 ± 2.2 ft.lb. (40 ± 3 Nm)
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P.O. Check Assemblies

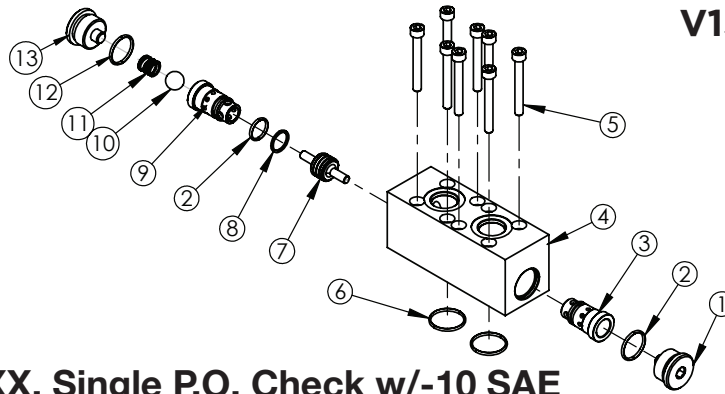


Assembled Work Section
Pre-Arranged for P.O. Checks
and Work Port Options

Item	Description	P/N
1	P.O. check manifold assembly with check on 1 port and -10SAE ports	V130-FM-W01-XXXX
	P.O. check manifold assembly with check on 1 port and -12SAE ports	V130-FX-W01-XXXX
	P.O. check manifold assembly with check on 2 ports and -10SAE ports	V130-FM-W03-XXXX
	P.O. check manifold assembly with check on 2 ports and -12SAE ports	V130-FX-W03-XXXX
2	Work section casting machined for work port options & P.O. checks with -8SAE ports, SINGLE ACTING CYLINDER SPOOL on B port, exposed spool eye, standard spring return	V130ABAJ01FM025
	Work section casting machined for work port options & P.O. checks with -8SAE ports, DOUBLE ACTING CYLINDER SPOOL on B port, exposed spool eye, standard spring return	V130ACAJ01FM025
	Work section casting machined for work port options & P.O. checks with -8SAE ports, DOUBLE ACTING CYLINDER SPOOL on B port, exposed spool eye, standard spring return	V130AJAJ01FM025
	Work section casting machined for work port options & P.O. checks with -8SAE ports, 4TH POSITION FLOAT SPOOL, exposed spool eye, standard spring return with 4th position detent	V130AMAK12FM025

P.O. Check Assemblies

V130-FM-W01-XXXX
V130-FX-W01-XXXX



Kit Part Number

V130-FM-W01-XXXX, Single P.O. Check w/-10 SAE

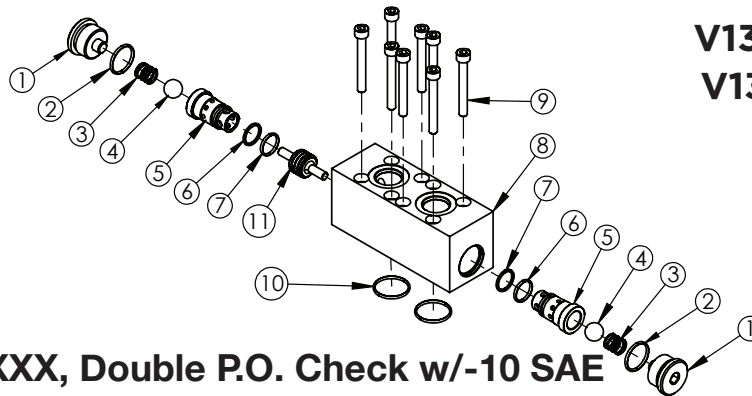
V130-FX-W01-XXXX, Single P.O. Check w/-12 SAE

Item	Description	P/N	Qty.
1	Plug used with insert plug for single sided P.O. check option	N/A	1
2	Back-up ring, parbak 8-016	N/A	2
3	Insert plug for single-sided P.O. check option (replaces check valve)	N/A	1
4	P.O. check manifold with -12SAE ports or -10SAE ports	N/A	1
5	P.O. check valve mounting screw, M6 x 65mm, grade 8.8	N/A	8
6	O-Ring, NBR, 70°Sh, 0.103" x 1.30" (2.62 x 32.99mm)	12T35622	2
7	Pilot piston	N/A	1
8	O-Ring, NBR, 70°Sh, 0.070" x 0.614" (1.78 x 15.60mm)	12T64426	1
9	Check valve body	N/A	1
10	Check ball, 1 ⁹ / ₃₂ " diameter, S2 class A	N/A	1
11	P.O. check valve spring	N/A	1
12	O-Ring, NBR, 70°Sh, 0.10" x 0.86" (2.62 x 21.89mm)	12T35949	1
13	Plug with spring seat used with check valve	N/A	1

Work Section P.O. Check Assembly Notes

Item 5 Torque to 7.4 ± 1.5 ft.lb. (10 ± 2 Nm)

Item 1&13 Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)



V130-FM-W03-XXXX
V130-FX-W03-XXXX

Kit Part Number

V130-FM-W03-XXXX, Double P.O. Check w/-10 SAE

V130-FX-W03-XXXX, Double P.O. Check w/-12 SAE

Item	Description	P/N	Qty.
1	Plug with spring seat used with check valve	N/A	2
2	O-Ring, NBR, 70°Sh, 0.10" x 0.86" (2.62 x 21.89mm)	12T35949	2
3	P.O. check valve spring	N/A	2
4	Check ball, 1 ⁹ / ₃₂ " diameter, S2 class A	N/A	2
5	Check valve body	N/A	2
6	Back-up ring, parbak 8-016	N/A	2
7	O-Ring, NBR, 70°Sh, 0.070" x 0.614" (1.78 x 15.60mm)	12T64426	2
8	P.O. check manifold with -12SAE ports or -10SAE ports	N/A	1
9	P.O. check valve mounting screw M6 x 65mm, grade 8.8	N/A	8
10	O-Ring, NBR, 70°Sh, 0.103" x 1.30" (2.62 x 32.99mm)	12T35622	2
11	Pilot piston	N/A	1

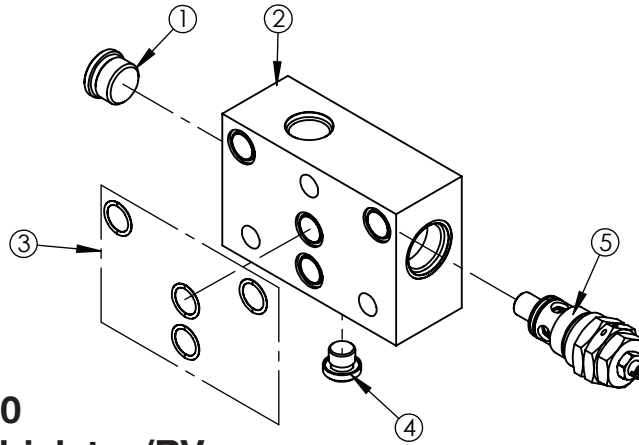
Work Section P.O. Check Assembly Notes

Item 1 Torque to 60 ± 3.7 ft.lb. (80 ± 5 Nm)

Item 9 Torque to 7.4 ± 1.5 ft.lb. (10 ± 2 Nm)

Mid-Sections

V130-B-GI-E53-N150



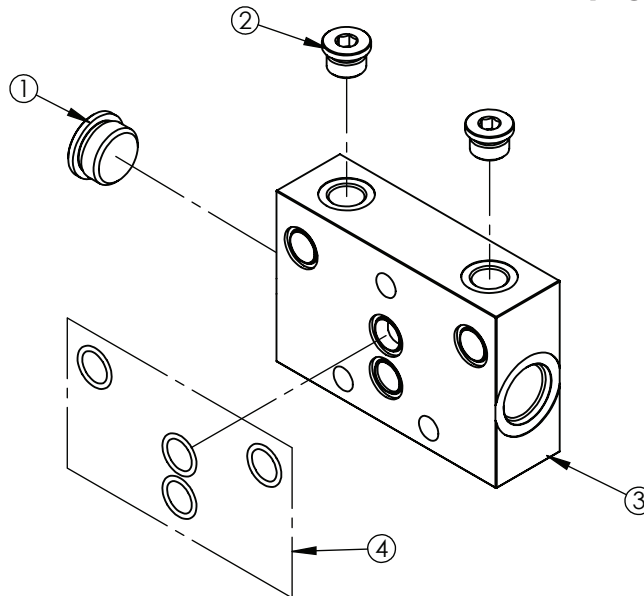
Kit Part Number
V130-B-GI-E53-N150
Combined Flow Mid-inlet w/RV

Item	Description	P/N	Qty.
1	Steel plug with O-Ring, -16SAE (1 $\frac{5}{16}$ "-12 UN)	HHBP-16Z	1
2	Combined flow mid-inlet casting with -16SAE (1 $\frac{5}{16}$ "-14 UN) top and side ports	N/A	1
3	V130-GSK-OUT (See page 25 for more information)	N/A	1
4	1/2" GAS plug assembly with O-Ring, NBR, 70°Sh, 0.10" x 0.86" (2.62 x 18.72mm)	N/A	1
5	See page 4 for more information	N/A	1

Mid-Section Notes

Item 1	Torque to 60 ± 3.5 ft.lb. (80 ± 5 Nm)
Item 4	Torque to 30 ± 2.2 ft.lb. (40 ± 3 Nm)
Item 5	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)

V130-B-GI-E51-XXXX



Kit Part Number
V130-B-GI-E51-XXXX,
Split Flow Mid-outlet

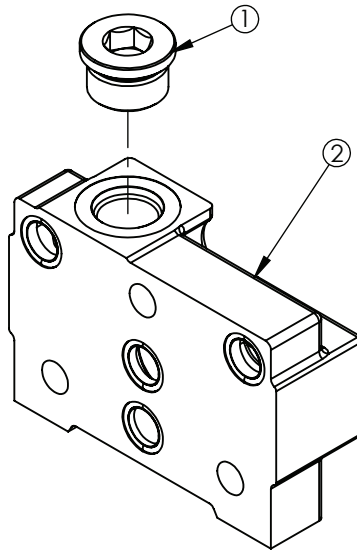
Item	Description	P/N	Qty.
1	Steel plug with O-Ring, -16SAE (1 $\frac{5}{16}$ "-12 UN)	HHBP-16Z	1
2	1/2" GAS plug assembly with O-Ring, NBR, 70°Sh, 0.10" x 0.74" (2.62 x 18.72mm)	N/A	2
3	Split flow mid-outlet casting with -16SAE (1 $\frac{5}{16}$ "-12 UN) side ports, option E51	N/A	1
4	V130-GSK-OUT (See page 25 for seal kit information)	N/A	1

Mid-Section Notes

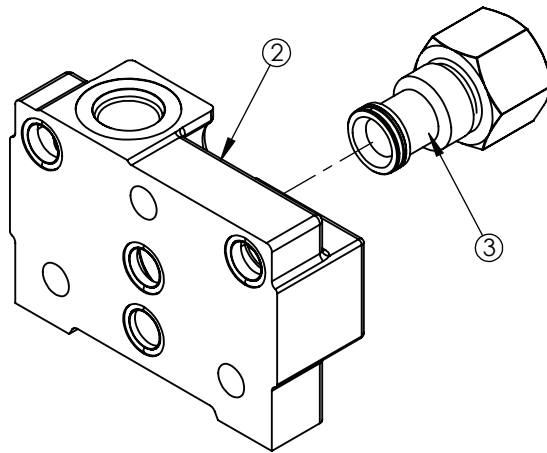
Item 1	Torque to 60 ± 3.5 ft.lb. (80 ± 5 Nm)
Item 2	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)

Outlets

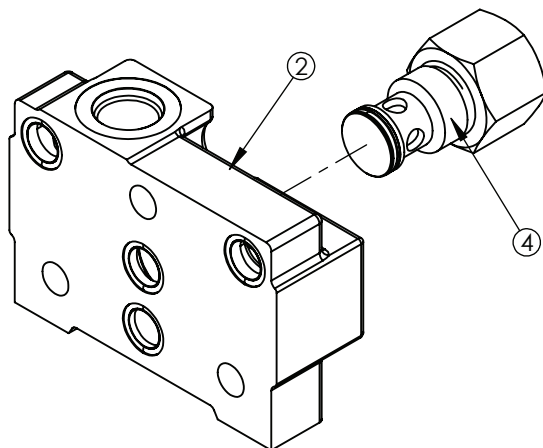
V130-C-GI-3DX-XXX Standard Outlet



V130-C-FY-6DX-XXX Outlet w/HPCO (Power Beyond)



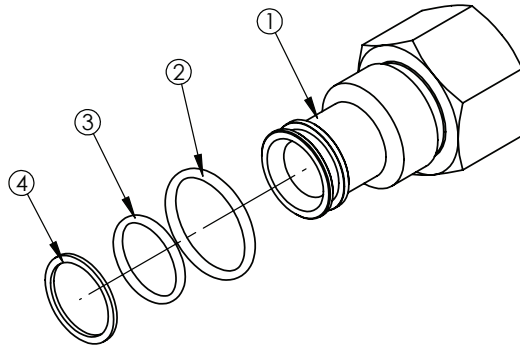
V130-C-FY-16DX-XXX Outlet w/Closed Center Plug



Item	Description	P/N
1	Steel plug with O-Ring, -16SAE (1 $\frac{5}{16}$ "-12 UN), (Only used with standard outlet, 3DX option)	HHBP-16Z
2	Outlet casting with -12SAE (1 $\frac{5}{16}$ "-12 UN) top and end ports {STANDARD OUTLET}	N/A
3	Power beyond plug (See page 23 for more information)	V130-C-PBS-02
4	Closed center plug (See page 23 for more information)	V130-C-CCP-02

Outlets

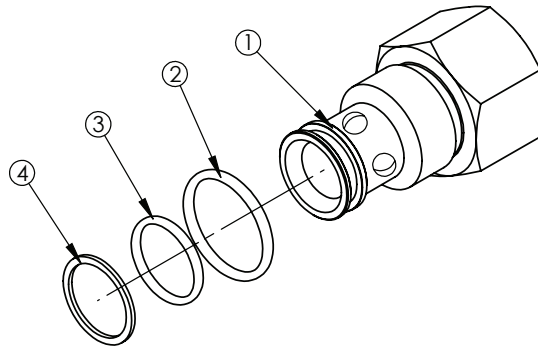
V130-C-PBS-02



Kit Part Number
V130-C-PBS-02
HPCO (Power Beyond Plug)

Item	Description	P/N	Qty.
1	-12SAE power beyond plug with -16SAE port	V130-C-PBS-02	1
2	O-Ring, NBR, 70°Sh, 0.12" x 1.17" (2.95 x 29.74mm)	N/A	1
3	Back-up ring parbak 8-118	N/A	1
4	O-Ring, NBR, 70°Sh, 0.103" x 0.875" (2.62 x 22.22mm)	N/A	1
Outlet Notes			
Item 1	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)		
*V130-C-PBS-02 can be ordered separately from main assembly			

V130-C-CCP-02

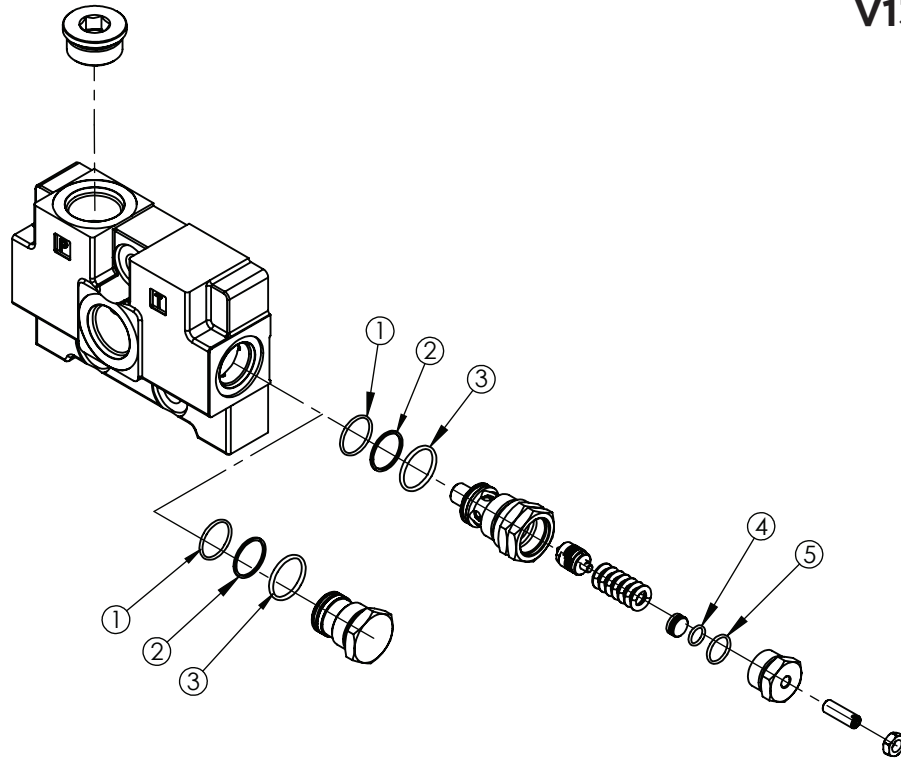


Kit Part Number
V130-C-CCP-02
Closed Center Plug

Item	Description	P/N	Qty.
1	-12SAE closed center plug with -16SAE port	V130-C-CCP-02	1
2	O-Ring, NBR, 70°Sh, 0.12" x 1.17" (2.95 x 29.74mm)	N/A	1
3	Back-up ring parbak 8-118	N/A	1
4	O-Ring, NBR, 70°Sh, 0.103" x 0.875" (2.62 x 22.22mm)	N/A	1
Outlet Notes			
Item 1	Torque to 88 ± 6 ft.lb. (120 ± 8 Nm)		
*V130-C-CCP-02 can be ordered separately from main assembly			

Seal Kits

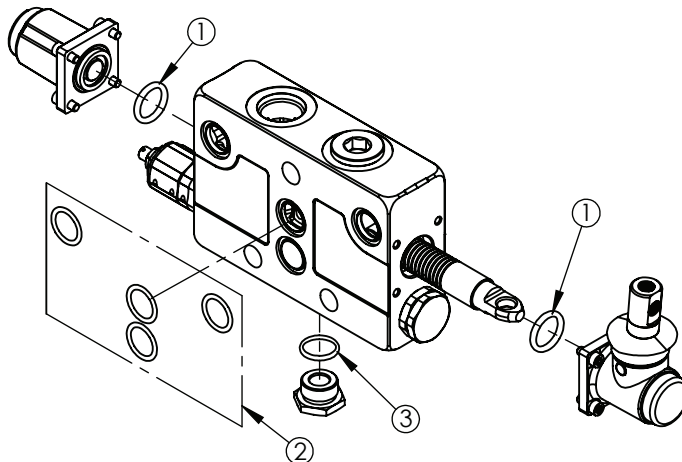
V130-GSK-IN



Kit Part Number
V130-GSK-IN
Inlet Seal Kit

Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.07" x 0.86" (1.78 x 21.95mm)	12T35949	1
2	Back-up ring, parbak 8-020	12T64591	1
3	O-Ring, NBR, 70°Sh, 0.09" x 0.92" (2.40 x 23.30mm)	12T64458	1
4	O-Ring, NBR, 70°Sh, 0.07" x 0.55" (1.78 x 14.00mm)	12T37021	1
5	O-Ring, NBR, 70°Sh, 0.07" x 0.80" (1.78 x 20.35mm)	12T64457	1

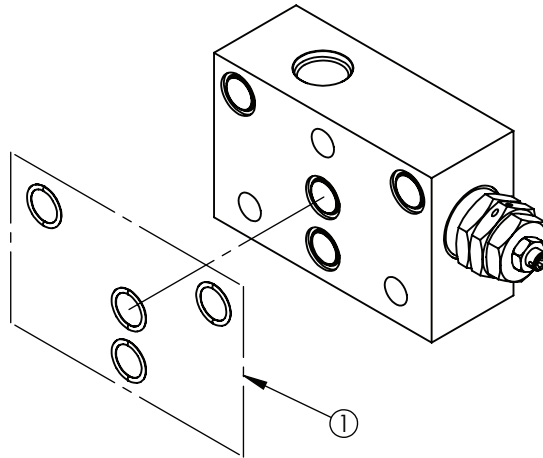
V130-GSK-WS



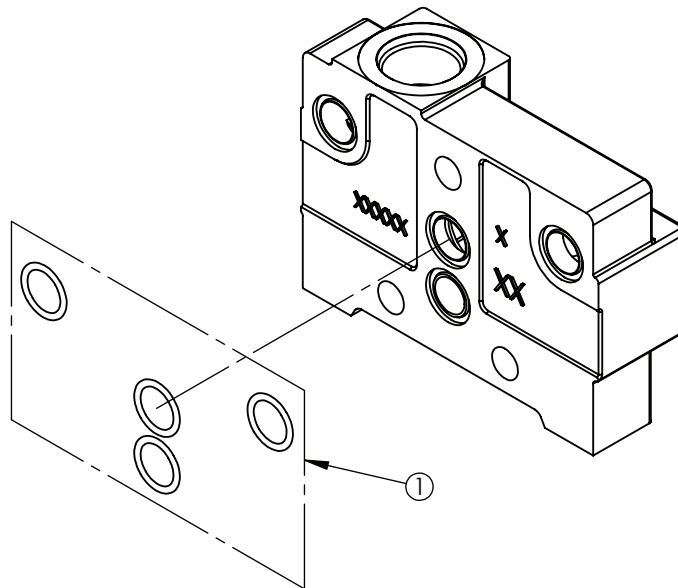
Kit Part Number
V130-GSK-WS
Work Section Seal Kit

Item	Description	P/N	Qty.
1	O-Ring, NBR, 90°Sh, 0.14" x 0.80" (3.53 x 20.22mm)	12T64571	2
2	O-Ring, NBR, 70°Sh, 0.098" x 0.79" (2.5 X 20MM)	12T64460	4
3	O-Ring, NBR, 70°Sh, 0.08" x 0.79" (2.00 x 20.00mm)	12T64459	1

Mid-Outlet



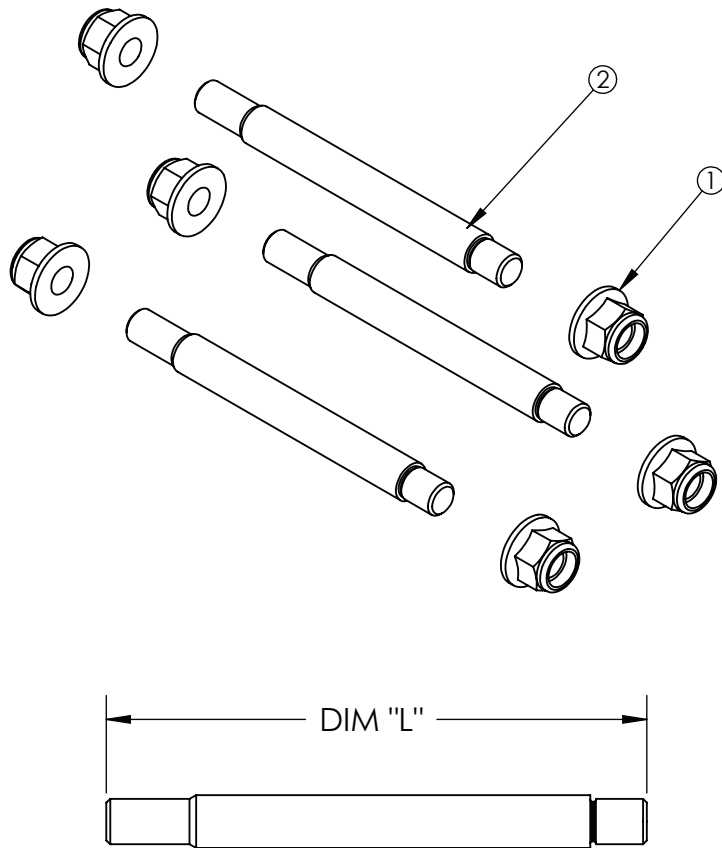
Standard Outlet



Kit Part Number
V130-GSK-OUT
Outlet Seal Kit

Item	Description	P/N	Qty.
1	O-Ring, NBR, 70°Sh, 0.098" x 0.79" (2.50 x 20.00mm)	12T64460	4

Stud Kits



Item	Description	P/N	Qty.
1	Lock-Nut, M12 (UNI 7473)	22T43849	6
2	Tie Rod	N/A	3
KIT INFO			
Item	Description	KIT P/N	DIM "L" IN (mm)
N/A	Stud for 1 work section assembly	V130-T01	5.6 (143)
N/A	Stud for 2 work section assembly	V130-T02	7.5 (191)
N/A	Stud for 3 work section assembly	V130-T03	9.4 (239)
N/A	Stud for 4 work section assembly	V130-T04	11.3 (287)
N/A	Stud for 5 work section assembly	V130-T05	13.2 (335)
N/A	Stud for 6 work section assembly	V130-T06	15.1 (383)
N/A	Stud for 7 work section assembly	V130-T07	17.0 (431)
N/A	Stud for 8 work section assembly	V130-T08	18.9 (479)
N/A	Stud for 9 work section assembly	V130-T09	20.7 (527)
N/A	Stud for 10 work section assembly	V130-T10	22.6 (575)
Stud Kit Notes			
Item 1&2	Torque to 52 ± 4 ft.lb. (70 ± 5 Nm)		



**Muncie[®]
Power
Products**

A Member of the Interpump Group

SP14-02 (Rev. 08-23)

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