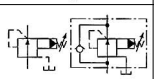
C

PRESSURE CONTROLS

Valve Type	KS Graphic Symbols	Max.operating Pressure MPa {kgf/cm²}	Max. Flow L/min (1 2 3 5 10 20 30 50 100 200 300 500 1000 2000)	Page
Remote Cont. Relief Valves		25 {255}	01	C-3
Direct Type Relief Valves		21 {214}	02	C-5
Pilot Operated Relief Valves		25 {255}	03 06 10	C-7
Low Noise Type Pilot Relief Valves		25 {255}	03 06	C-11
Sol. Cont. Relief Valves		25 {255}	03 06 10	C-14
H Type Press. Cont. Valves		21 {214}	03 06 10	C-23
HC Type Press. Cont. Valves		21 {214}	03 06 10	C-29
Press. Reducing & Check Valves		21 {214}	03 06	C-34
Press. Reducing & Relieving Valves		03:14 {143}	03	C-40
Unloading Relief Valves		21 {214}	06	C-43

Hydraulic Fluids

1. Fluid Types

Any type of hydraulic fluid, listed in the table below can be used.

Petroleum based oil	Use fluids equivalent to ISO VG32 or VG46.
Synthetic fluids	Use phosphate ester or polyol ester fluid. When phosphate ester fluid is to be used, prefix "F-" to the model number because a special seal (fluororubber) will be used.
Water containig fluids	Use water - glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult your SEWON represestatives in acvance.

2. Recommended Fluid Viscosity and Temperature

Use under conditions where the viscosity and temperature of the hydraulic fluid remain in the ranges indicated in the following table.

Name		Viscosity	Temperature
Remote Control Relief Valves	H Type Presure Control Valves	15~400mm²/s{cSt}	-15~+70℃
Direct Type Relief Valves	HC Type Pressure Control Valves		
Pilot Operated Relief Valves	Pressure Reducing Valves		
Low Noise Type Pilot Operated Relief	Valves Pressure Reducing and Check Valves		
Solenoid Controlled Relief Valves	Pressure Reducing and Relieving Valves		

※ If the valve is provided with a vent ristrictor (ex.: A-BSG-03), the viscosity range should be 15-200cSt (80-900 SSU).

3. Control of Contamination

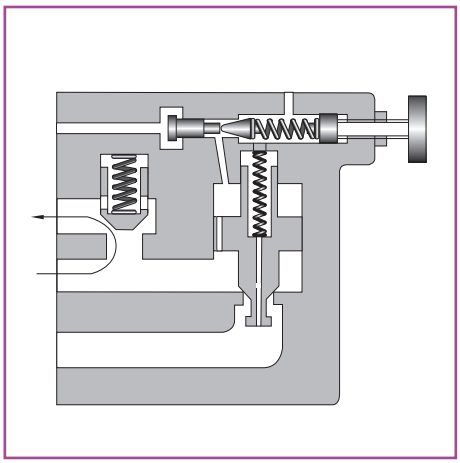
Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valve. Please maintain the degree of contamination within NAS 1638-Grade 11. Use 25㎛ or finer line filter.

4. Drain Piping

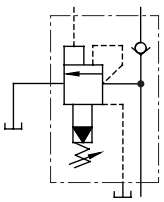
Drain port must be connected directly to the tank in condition back pressure is lower than the atmospheric pressure.
That line pressure can be increased infinitely can be caused a serious accident.

Unloading Relief Valves

Unloading Relief Valves are used to operate pumps under a minimum loid in accumulator or 2-pressure pump circuits etc.



KS Graphic Symbol



Ratings

Model Numbers	Max. Operating Pres. MPa{kgf/㎠}	Max. Flow L/min	Mass kg
BUCG-06-※※-※-35	21{214}	125	12

Model Number Designation

BUC	G	-06	-B	V	V	-35
Series Number	Type of Mounting	Valve Size	Cut-out Pres. Adj. Range MPa{kgf/㎠}	High Venting Pres. Feature	Pilot Connection	Design Number
BUC : Unloading Relief Valve	G : Sub-Plate Mounting	06	B : 2.5~7{25~71.4} C : 3.5~14{35.7~143} H : 7 ~20.5{71.4~209}	V : For High Venting Pres. Feature	None: Internal Pilot E : External Pilot	35

Note 1. Use the high-venting-pressure type to reduce the shift time from unloading to onloading.
2. Limit the pressure drop between the valve and the accumulator in an accumulator circuit below 10% of the cut-out pressue.
3.Limit the drain port back pressure below 2% of the cut-out pressue.

Instructions

- To adjust the pressure, loosen the lock nut and turn pressure adjustment handle slowly clockwist for higher pressure and anti-clockwise for lower pressures. After adjustments, do not forget to tighten the lock nut.
- Take care not to neglect connecting the drain pipe to the tank; otherwise not only will the valve fail to operate properly but also the line pressure will rise infinitely. Extend the end of the drain pipe into fluid.

Attachment

- Mounting Bolts

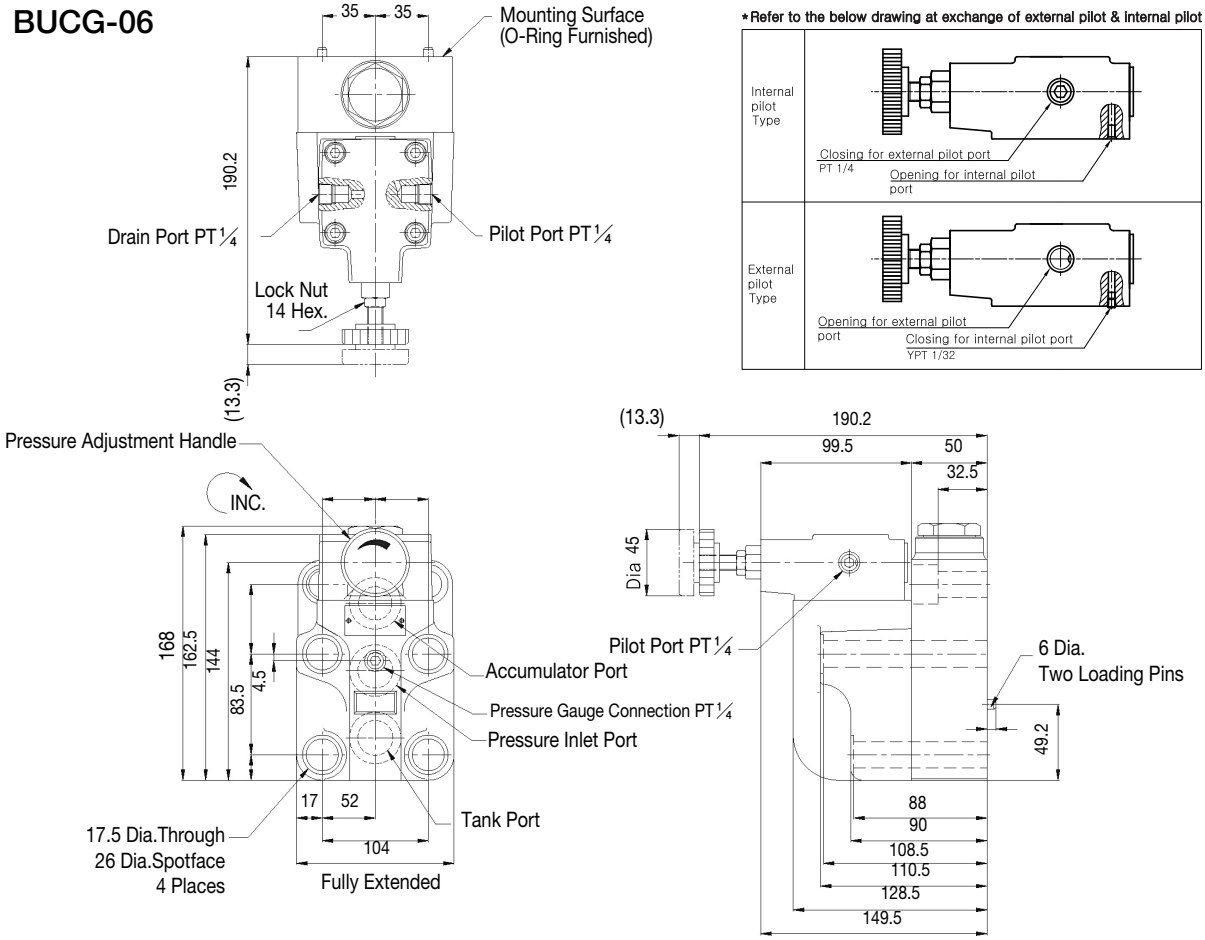
Valve Model Number	Socket Head Cap Screw	
BUCG-06	M16×65L	2pcs
	M16×110	2pcs
	M16×130L	2pcs

Sub-Plate

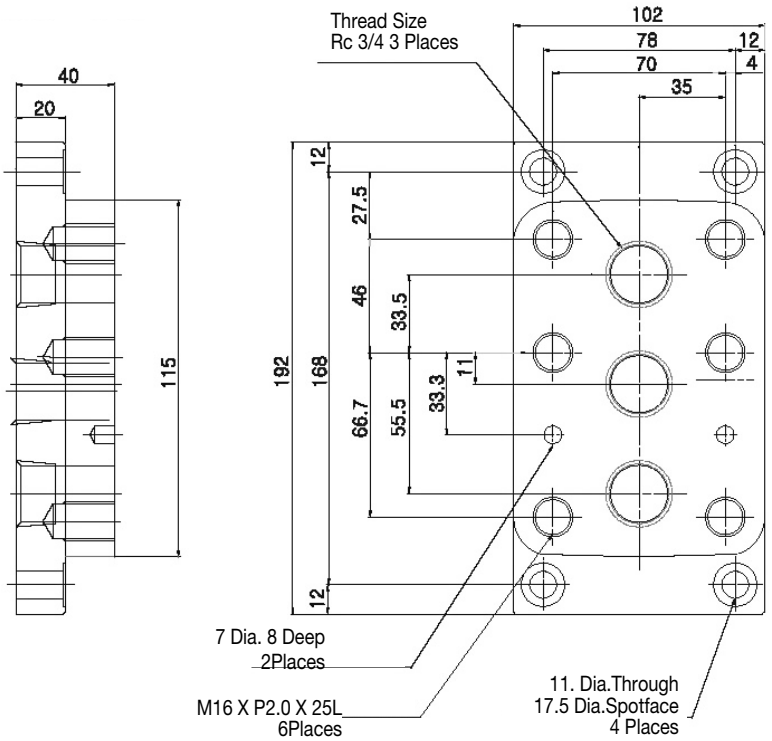
Valve Model aNumber	Sub-Plate Model Number	Piping Size	Mass kg
BUCG-06	BUCGM-06-20	Rc 3/4	4.4

- Sub-plates are available. Specify sub-plate model from the table above. When sub-plates are not used, the mounting surface should have a good machined finish.

BUCG-06



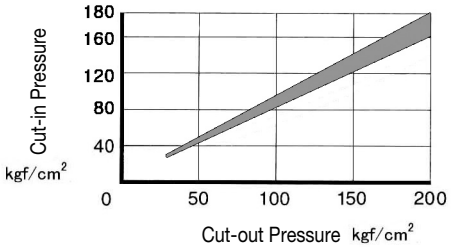
BUCGM-06



■Cut-in Pressure vs. Cut-out Pressure

BUCG-06

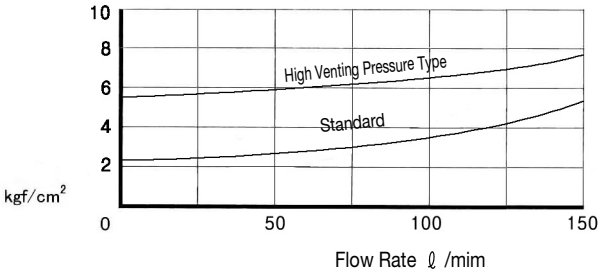
Hydraulic fluid :
Viscosity 35mm²/s{cSt}
Specific Gravity 0.850



■Unloading Pressure vs. Flow

BUCG-06

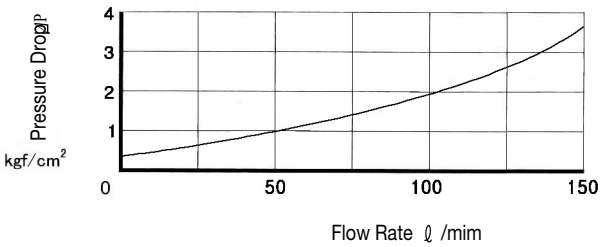
Hydraulic fluid :
Viscosity 35mm²/s{cSt}
Specific Gravity 0.850



■Pressure Drop for Check Valve

BUCG-06

Hydraulic fluid :
Viscosity 35mm²/s{cSt}
Specific Gravity 0.850



●For any other viscosity, multiply the factors in the below table.

Viscosity	mm²/s{cSt}	15	20	30	40	50	60	70	80	90	100
	SSU	77	98	141	186	232	278	324	371	471	464
Factor		0.87	0.96	1.03	1.09	1.14	1.19	1.23	1.27	1.30	

●For any other specific gravity(G), the pressure drop (△P′) may be obtained from the fomula below.

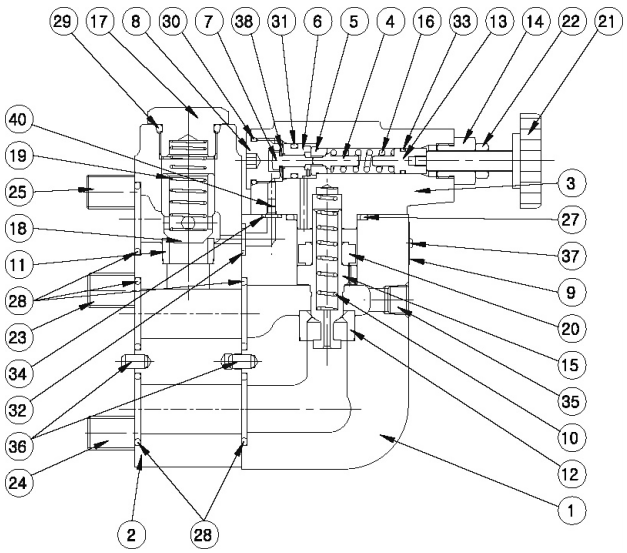
$$\Delta P' = \Delta P\,(G'/0.850)$$

■List of Seals

⚠ CAUTION

When making replacement of seals, please do it carefully after reading through the relevant instructions in the Operator's Manual.

BUCG-06



Item	Name of Parts	Part Numbers	Quantity
27	O-RING	SO-NB-P32	1
28	O-RING	SO-NA-P28	5
29	O-RING	SO-NB-P24	1
30	O-RING	SO-NB-P18	1
31	O-RING	SO-NB-P12	1
32	O-RING	SO-NB-P11	1
33	O-RING	SO-NB-P9	1
34	O-RING	SO-NB-P6	3