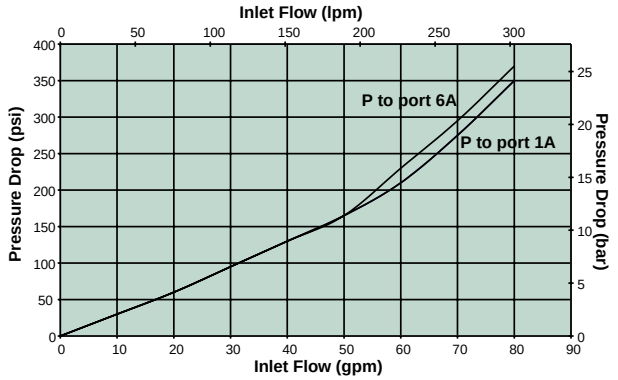
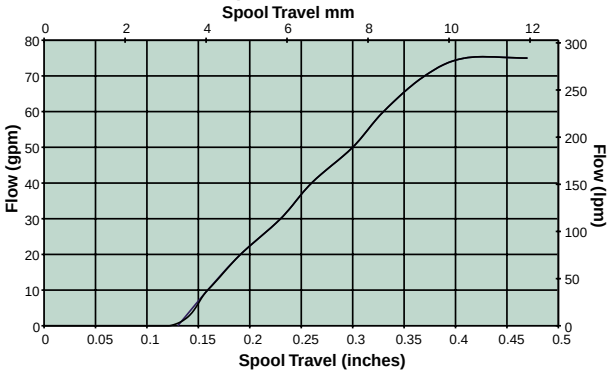
PC55™ Flow Curves

(tested @ 120° F (49° C) & 2cSt)

Inlet To Workport Pressure Drop

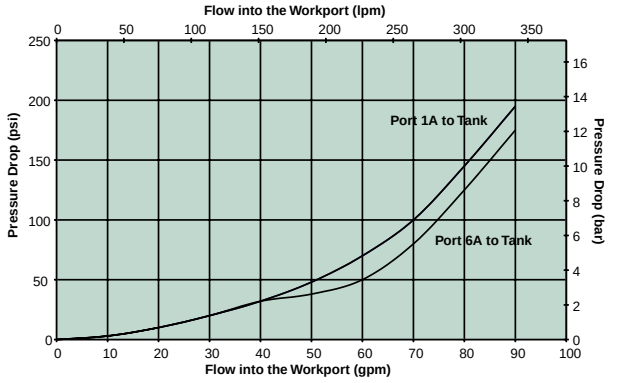


Meter-In Flow to Workport
Manual Operated Worksections

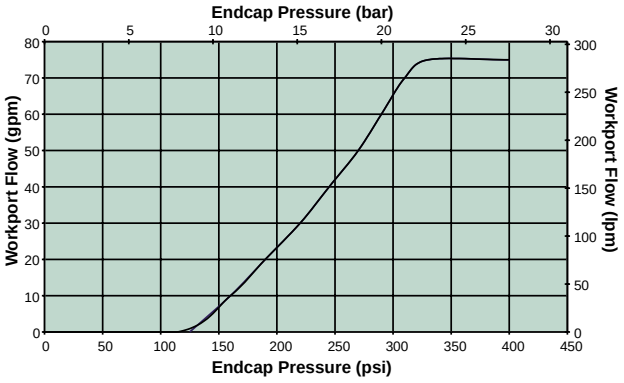


Metering curves based upon a margin psi of 250psi

Workport to Tank Pressure Drops



Meter-In Flow to Workport
Hydraulic Remote Operated Worksections



Metering curves based upon a margin psi of 250psi

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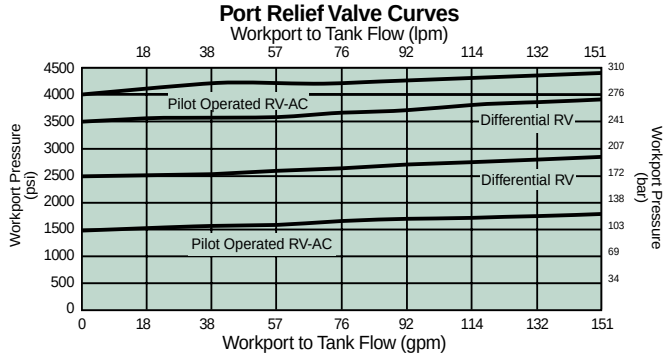
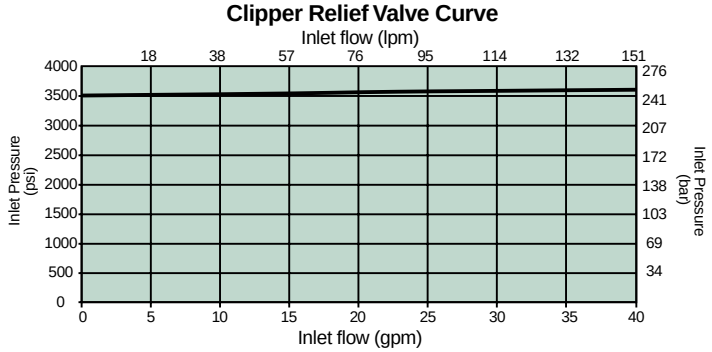
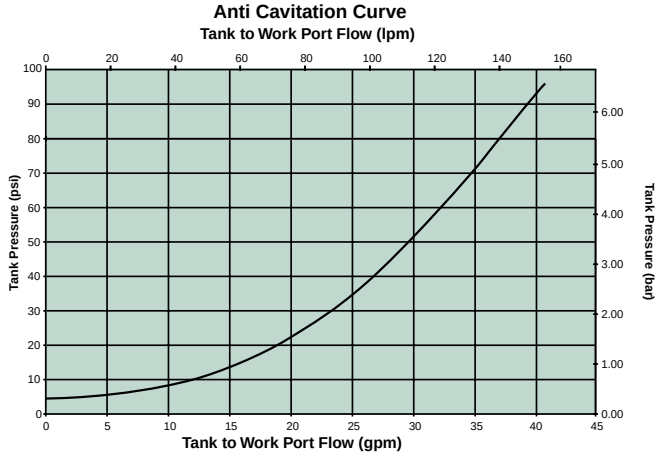
PC55™ Flow Curves

(tested @ 120° F (49° C) & 21cSt)







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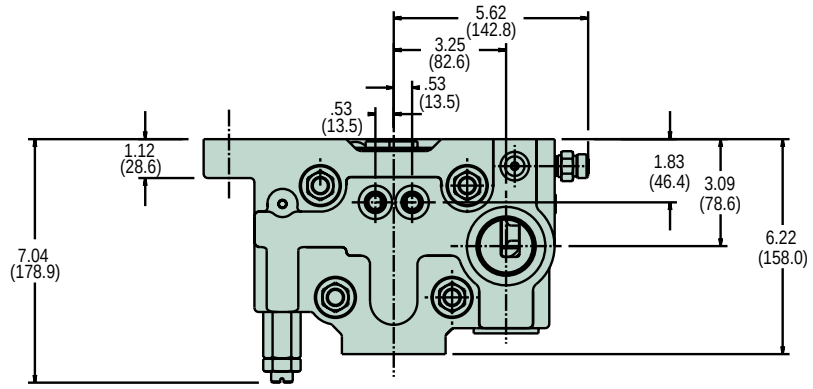
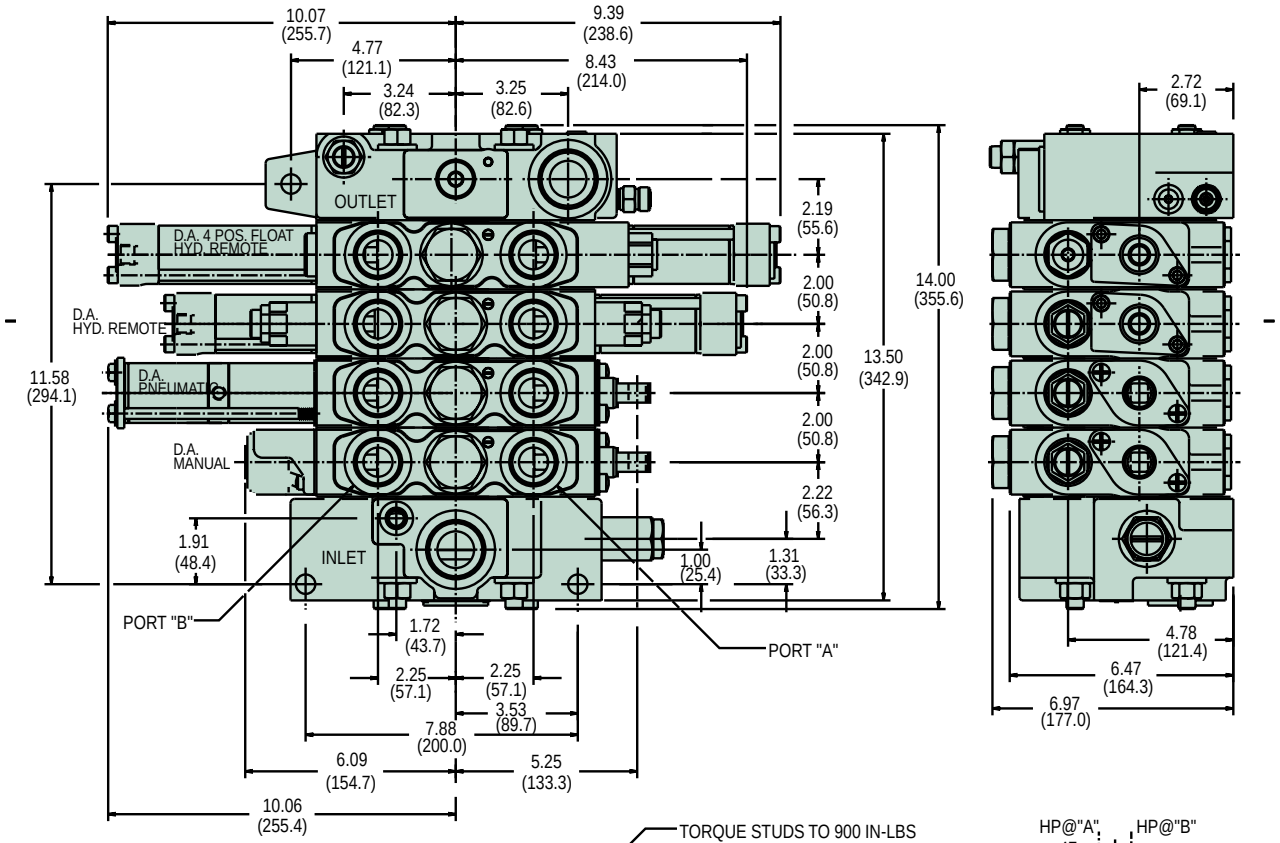
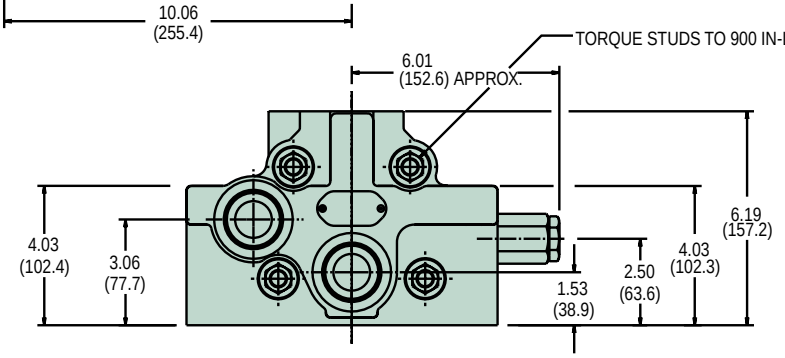
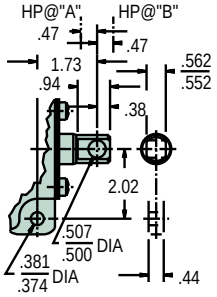
PC55™ Installation Drawing



Dimensions
are in(mm)







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PC55™ Inlet Coding/How to Specify

Example:

Box (1)	Box (2)	Box (3)	Box (4)	Box (5)	Box (6)	psi setting
A	A	S	8	8	0	0	(3500)

Box (1)	Box (2)	Box (3)	Box (4)	Box (5)	Box (6)	psi setting
							( )

Box 1: Description

AA	Inlet with R/V (Advise pressure setting)
CA	Inlet with R/V Plug

Box 2: Port Type Code

B	BSP
M	Metric
S	SAE

Box 3: High Pressure Top

No Port				
0				
BSP				
—	**7**	**8**	**9**	
—	3/4"	1"	1¼"	
Metric				
—	**7**	**8**	**9**	
—	M26	M33	M42	
SAE				
—	**7**	**8**	**9**	
—	SAE 12	SAE 16	SAE 20	

Box 4: High Pressure Top

No Port				
0				
BSP				
—	**7**	**8**	**9**	
—	3/4"	1"	1¼"	
Metric				
—	**7**	**8**	**9**	
—	M26	M33	M42	
SAE				
—	**7**	**8**	**9**	
—	SAE 12	SAE 16	SAE 20	

Box 5: Low Pressure Side

No Port					
0					
BSP					
—	**7**	**8**	**9**	**10**	
—	3/4"	1"	1¼"	1½	
Metric					
—	**7**	**8**	**9**	**10**	
—	M26	M33	M42	M48	
SAE					
—	**7**	**8**	**9**	**10**	
—	SAE 12	SAE 16	SAE 20	SAE 24	

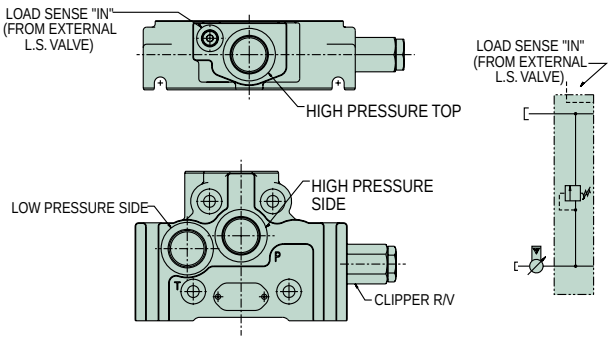
Box 6: Load-sense In *(from another valve)*

A port size must be coded if this valve communicates with another load-sense valve. Otherwise, do not code.

BSP	2-1/4"
Metric	2-M12
SAE	2-SAE 6

Note – if the PC55 is to be in parallel with any other load-sense valve, please contact the factory for proper installation procedures.

Inlet Port Locations



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PC55™ Work Section Coding/How to Specify

Example:

Box (1)	Box (2)			Box (3)	Box (3A)	Box (3B)	Box (4)		Box (5A)	Box (5B)	Box (6)	psi setting for ports A & B
H	1	7	0	A			S	7	1	1	A	(2000 / 1500)
												(/)

Box 1: Description

H	Double Acting Cylinder
L	Double Acting Motor
J	Single Acting Cylinder (port B)
N	Single Acting Motor (port B)
G	Double Acting Cyl. 4th Pos. Float (IN)
R	Double Acting Cyl. 4th Pos. Regen. (IN) (available in code X - hydraulic remote operator only)

Note - Codes G and R are available as left-handed sections only.

Box 2: Spool Flow

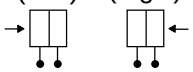
GPM (The last two digits denotes flow @ full stroke. Margin pressure 250 psi/17 bar.)
Double Acting Cylinder*
Double Acting Motor*
Single Acting Cylinder (port B)*
Single Acting Motor (port B)*
Dbl. Act. Cyl. 4th Pos. Float (IN)*

***Contact division for spool available.**

Box 3: Operator (Spool Positioning)

(Left or right handed section)

(Left) (Right)



	Left	Right
Spring Return	**A**	**E**
(3) Position Detent	**B**	**F**
D. E. Solenoid On/Off or Proportional 12V	**P2**	**-**
D. E. Solenoid On/Off or Proportional 24V	**P4**	**-**
Single Ended Pneumatic	**V**	**U**
Hydraulic Remote, Proportional	**X**	**-**
Hydraulic Remote, On/Off	**XP**	**-**

Note: Codes P must have pilot and drain codes from Box 3A.

Box 3A: Optional Pilot and Drain for P2 & P4

A	External Pilot and Drain
B	External Pilot and Internal Drain
C	Internal Pilot and Drain
D	Internal Pilot and External Drain

Box 3B: Optional Stroke Limiter for P2 & P4

For A & B	**1**
For A Only	**2**
For B Only	**3**

Porting (Box 4)

No Port		
0		
BSP		
—	**B7**	**B8**
—	3/4"	1"
Metric		
—	**M7**	**M8**
—	M26	M33
SAE		
—	**S7**	**S8**
—	SAE 12	SAE 16

Box 5A & 5B: Port A & B Accessory

(apply a code for each port)

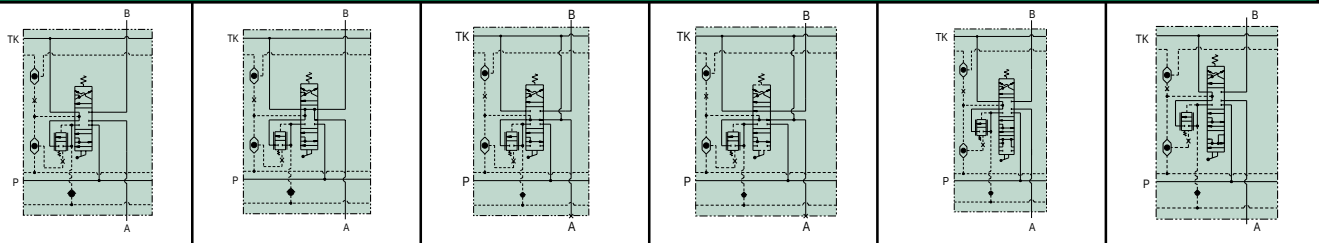
0	Not Machined
1	R/V-A/C Screw Adjustable
2	Anti-cavitation Check
3	R/V Shim Adjustable
5	Plastic Closure
6	R/V Screw Adjustable
9	Steel Plug

Box 6: Q Reg. Check Ball

(section next to inlet does not take a ball unless it communicates with another load-sense valve)

A	No Ball
B	Ball

Function Schematics



H
Double Acting Cylinder

L
Double Acting Motor

J
Single Acting Cylinder (port B)

N
Single Acting Motor (port B)

G
Double Acting Cylinder 4th Position Float (IN)

R
Double Acting Cylinder 4th Pos. Regen. (IN)

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PC55™ Outlet Coding/How to Specify

Example:

Box (1)	Box (2)	Box (3)	Box (4)	Box (5)	Box (6)	Box (7)
Z	L	I	S	8	9	2	0	1

Box (1)	Box (2)	Box (3)	Box (4)	Box (5)	Box (6)	Box (7)

Box 1: Description

ZLI	L/S R/V (Advise pressure setting)

Box 2: Port Type Code

B	BSP
M	Metric
S	SAE

Box 3: Low Pressure Top

No Port				
0				
BSP				
—	**7**	**8**	**9**	
—	3/4”	1”	1¼”	
Metric				
—	**7**	**8**	**9**	
—	M26	M33	M42	
SAE				
—	**7**	**8**	**9**	
—	SAE 12	SAE 16	SAE 20	

Box 4: Low Pressure Side

No Port					
0					
BSP					
3	**—**	**7**	**8**	**9**	
1/2”	—	3/4”	1”	1¼”	
Metric					
3	**4**	**7**	**8**	**9**	**10**
M18	M22	M26	M33	M42	M48
SAE					
3	**4**	**7**	**8**	**9**	**10**
SAE 8	SAE 10	SAE 12	SAE 16	SAE20	SAE24

Box 5: Load-sense (to pump)

BSP	**2**-1/4”
Metric	**2**-M12
SAE	**2**-SAE 6

Box 6: Load-sense (gauge)

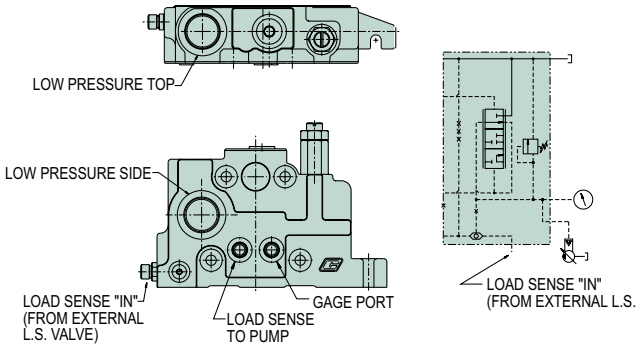
O	O-gauge port with SAE-6 steel plug
2	2-1/4” BSP port with steel plug
2	2-M12 Metric port with steel plug

Box 7: Load-sense (from another valve)

A port size must be coded if this valve is in parallel with another load-sense valve. Otherwise, do not code.

BSP	**1**-1/8”
Metric	**1**-M10
SAE	**1**-Male JIC 37° for 3/8” O.D. Tube

Standard Outlet



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PC55™ Frequently Asked Specification Questions

1. Does the pump have a load-sense vent and can it be plugged? The vent can be either internal or external to the valve, but internal vent is preferred. The Q Met. vent is sized for approximately 1.1 gpm at 3000 psi (4.2 lpm at 207 bar).

2. Does the pump control have an orifice which restricts the load-sense signal into the control? What is the length and diameter of the load-sense line? (This impacts the system response time.) Recommended size is SAE 4 or 6, BSP 1/8" or 1/4", M10 or M12. If the length of the line exceeds 20 feet (6 meters) please contact our factory.

3. Are there any elements in the circuit between the pump and the PC25 valve which could restrict pump flow to the valve; including other valves, high-pressure filters or the plumbing itself? Any restrictions cause pressure drop which consumes part of the margin pressure and could impact full flow potential to the PC25 valve. It could also affect the responsiveness of the system. Ideally the anticipated pressure-drop between the pump and the valve should be specified. (Our standard spools are designed for a margin pressure of 250 psi.)

4. What devices are in the tank return line downstream of the PC25 outlet? What is the expected tank return pressure, measured at the outlet, when the valve is in neutral?

5. Clipper relief valves or pump pressure limiters used in conjunction with load-sense relief valves should be set 500 psi higher (14-21 bar) to prevent flow loss. This allows the load-sense relief valve to control the maximum pressure and reduces any potential for chatter between the relief valves.

6. What is the pump displacement compared to the total flow requirement of the system? As with all pressure-compensated valves, quiescent flow loss (parasitic) occurs and should be taken into account when sizing the pump. The Q Met. vent is sized for about 1.1 gpm at 3000 psi (4.2 lpm at 207 bar).

7. Is there another load-sense valve in parallel or series with the PC55? Please contact the factory if another load sense valve is in parallel with the PC55.

Seal Repair Kits

Clipper R.V. & Clipper Plug	391 1823 288
Load-Sense R.V. & L.S. Plug This repair kit is for 355 9001 303	391 1823 290
Load-Sense R.V. & L.S. Plug This repair kit is for 355 9001 355	396 1823 028

Clipper Relief Valves

355 9001 305	800-2500 PSI	(55-172 bar)
355 9001 306	2501-4400 PSI	(172-303 bar)

Load-Sense Relief Valve

355 9001 303 500-4000 PSI (34-276 bar)
Production before January, 2002
355 9001 355 500-4000 PSI (34-276 bar)
Production as of January, 2002

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