



DIRECTIONAL CONTROL VALVE
SERIES CV 432
SPECIAL LOADER VALVE



NIMCO
NIMCO
NIMCO
CONTROLS

RELIABILITY FROM QUALITY

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The CV432 open center valve is a parallel circuit valve which is designed to operate in open center hydraulic systems up to pressures of 320 bar (4600 psi) and flow rates of up to 80 l/min (21 USgpm)

The CV432 on demand LS version is designed to operate with a variable pump and in closed center system up to a pressure of 320 bar (4600 psi) and flow rates up to 80 l/min (21 USgpm).

The CV432 valve offers a wide selection of spools for optimal spool control of any load, as well as a wide range of spool controls for different applications.

Some of the CV 432's main advantages are :

- Exceptionally low spool leakage rates of less than 2 cm³/min (or 0.12 in³/min)
- Load check valves on each spool
- Direct acting main relief valve for quick reponse
- Float function for the lowering circuit
- Regen function for the tilt circuit
- Direct mounted joystick for both float and regen
- Cable control option
- Power Beyond option
- BSP and SAE threads are standard, but also metric and NPTF can be offered upon request

Max pressure setting	bar	psi
Main relief valve	320	4641
Tank Line	10	145
Flow rates	lpm	USGpm
Max flow A/B	80	21
Temperature range	°C	°F
Standard seals	-40 to +80	-40 to +176
Spool leakage at	cm³/min	inch³/min
100 bar (1450 psi) and 46 mm ² /s (cSt) 216 SSU viscosity A and B port	max 3	max 0.16
Filtration		
Contamination level equal to or better than	19/16 according to ISO 4406	NAS 1638-class 10
Viscosity	mm²/s (cSt)	SSU
Recommended operating viscosity range	10-400	47 - 1875
Start viscosity up to	1000	4687
Weight	kg	lbs
CV 432	10	22
Operating force required for spool movement	N	lbf
Spring centered	140	31
Detent in	330	74
Detent out	90	20
Number of work sections	2	2

SPOOL OPTIONS

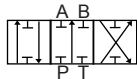
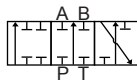
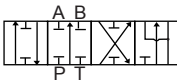
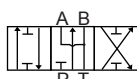

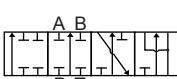
STANDARD THREADS

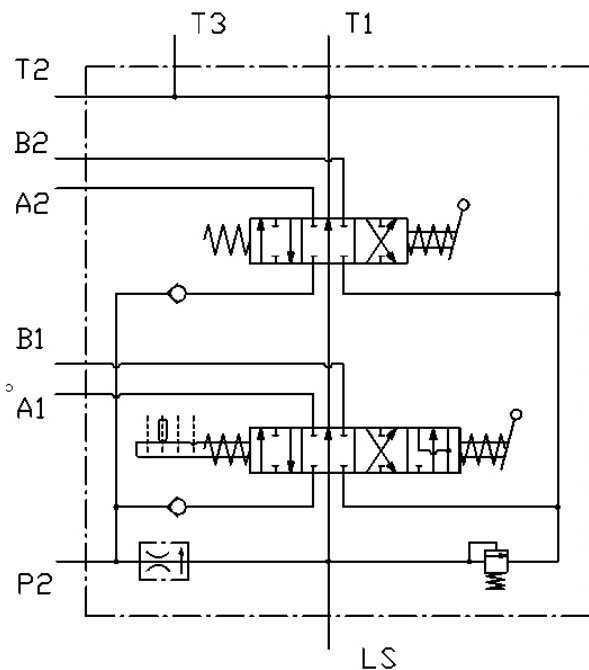
	Port sizes	BSP	UNF	Metric
Inlet	P1	G ½	7/8-14 (SAE 10)	M18x1.5
	P2	G ½	7/8-14 (SAE 10)	M18x1.5
Cylinder ports	A-B	G ½	3/4-16 (SAE 8)	M18x1.5
Tank	T1	G ½	1-1/16-12 (SAE 12)	M22x1.5
	T2	G ½	7/8-14 (SAE 10)	M18x1.5
	T3	G ¾	7/8-14 (SAE 10)	M18x1.5

SPOOL FOR OPEN CENTERED VALVES

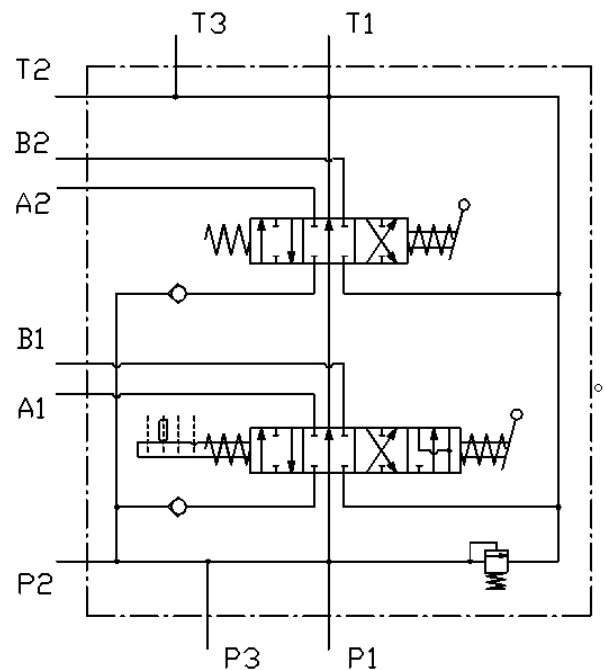
Part No.	Spool type	Type	Symbol	SP-No.
10485-3B	1X	Double acting		SP-10485-3B
10486-3B	2XA	Single acting A port		SP-10486-3B
10487-3B	3X	DA + float		SP-10487-3B
10488-3B	4X	Motor spool		SP-10488-3B
10489-3B	1R	Double acting		SP-10489-3B
10490-3B	2RA	Single acting		SP-10490-3B
10491-3B	3R	DA + float + metering		SP-10491-3B
10492-3B	4R	Motor spool		SP-10492-3B
10493-3B	8R	DA + float + metering		SP-10493-3B
10795-3B	7RA	Single acting + float		SP-10795-3B

SPOOLS FOR LOAD SENSING VALVES

Part No.	Spool type	Type	Symbol	SP-No.
10494-3B	1S	Double acting		SP-10494-3B
10495-3B	2SA	Single acting A port with metering		SP-10495-3B
10496-3B	3S	DA + float with metering		SP-10496-3B
10497-3B	4S	Motor spool with metering		SP-10497-3B
10498-3B	8S	DA + regen with metering		SP-10498-3B
10796-3B	7SA	Single acting + float 2SA		SP-10796-3B



Closed Center



Open Center

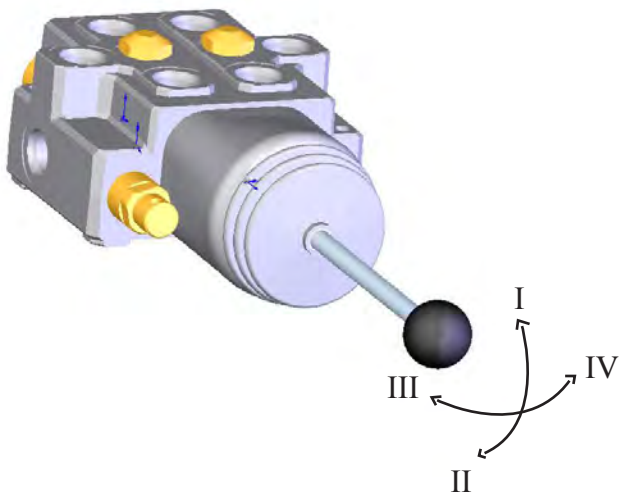
SPOOL OPTIONS

Code	Type	A-side	B-side	Type	Code
9	Spring centered.			Hand lever. Encased	S5
11	Spring centered. Detent in pos.4			Mechanical joystick for dual-spool control.	S6
15	Spring centered. Detent in pos.2 and 4			Wire control	W
10	Spring centered. Detent in pos. 1, 2 and 3		For different joystick configurations including float and regen functions please see page 8 and 9.		
12	Spring centered. Detent in pos.4				
13	Spring centered. Detent in pos.2				
14	Spring centered. Detent in pos.3				
18	Spring centered. Pressure point in pos.5				

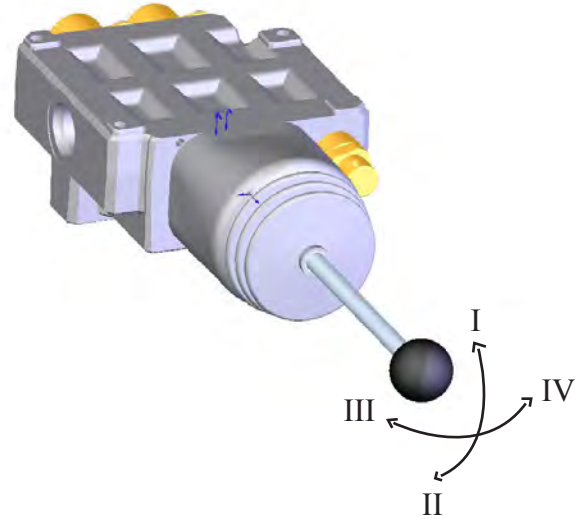
SPOOL CONTROLS

JOYSTICK SPECIFICATION - HORIZONTAL MOUNTING

PORTS UP



PORTS DOWN



1. Check port/hose orientation

- Ports up
- Ports down

2. Fill in functions (handwrite)

- Lift
- Lower
- Float
- Curl in
- Curl out
- Regen

3. Valve mounting holes

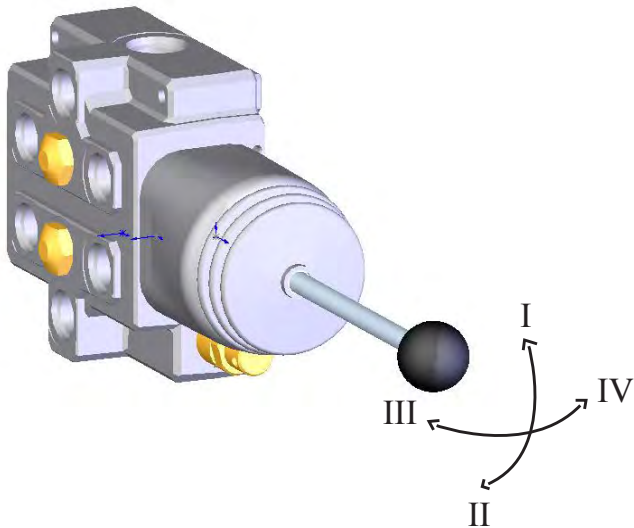
- Through casting holes
- Threaded bottom holes

Please fill in corresponding Roman numerals

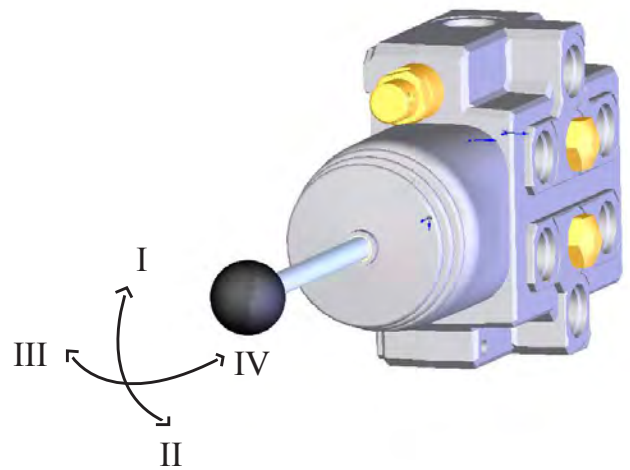
SPOOL CONTROLS

JOYSTICK SPECIFICATION - VERTICAL MOUNTING

PORTS LEFT



PORTS RIGHT



1. Check port/hose orientation

Ports left

Ports right

2. Fill in functions (handwrite)

Lift

Lower

Float

Curl in

Curl out

Regen

3. Valve mounting holes

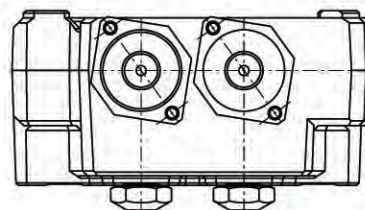
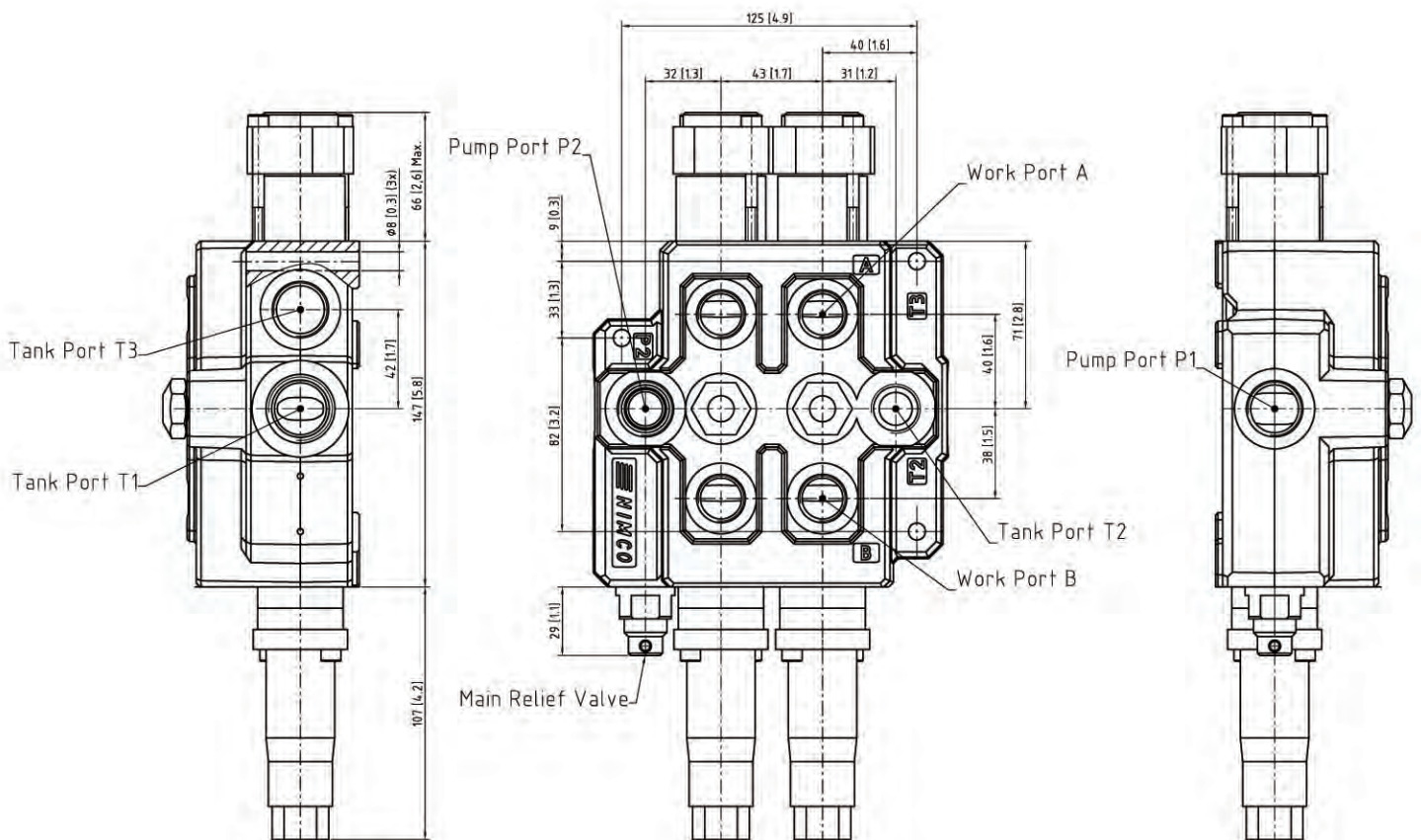
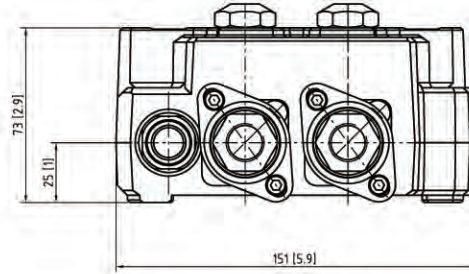
Through casting holes

Threaded bottom holes

Please fill in corresponding Roman numerals

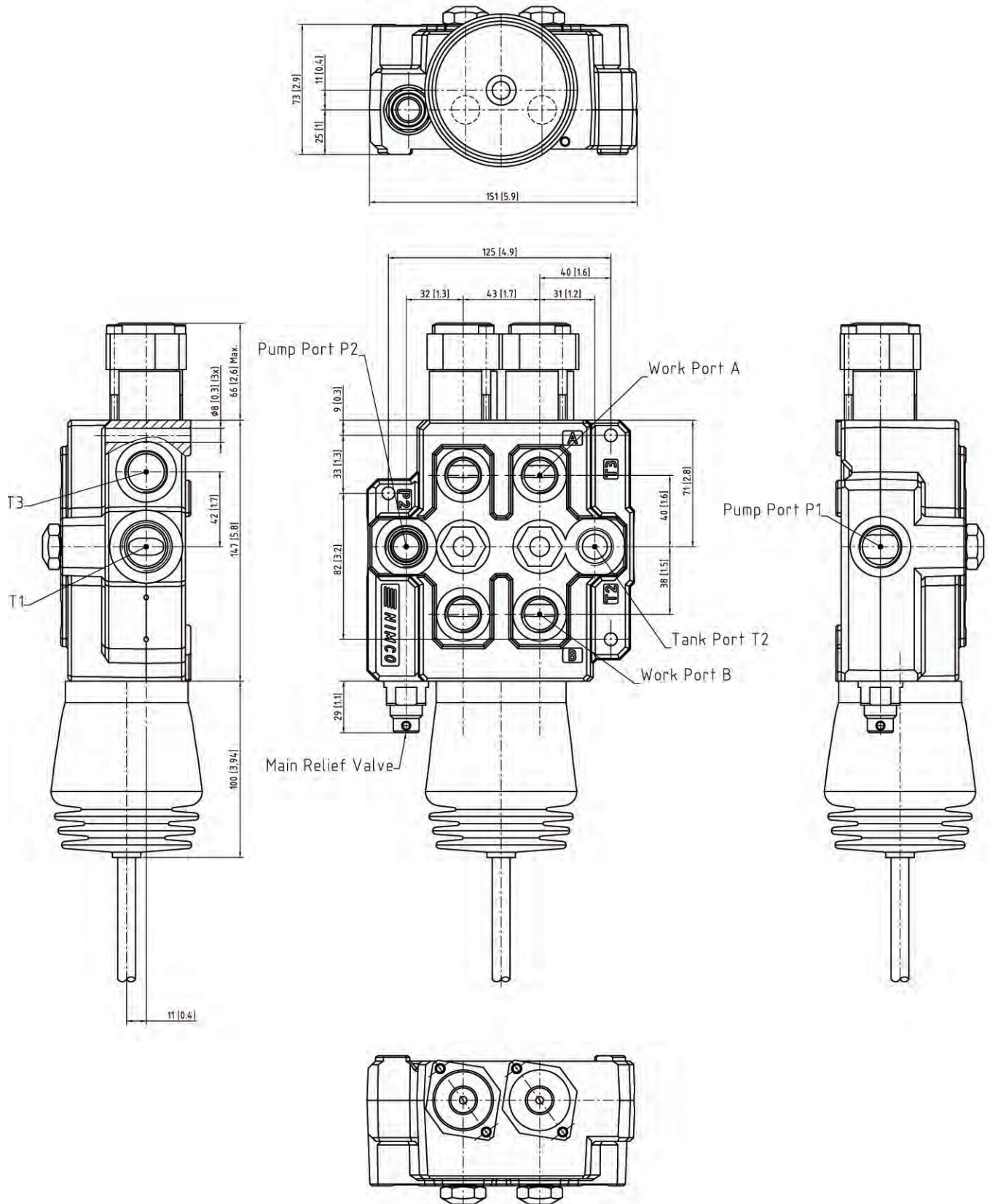
ASSEMBLY DIMENSIONS

VALVE WITH WIRE CONTROL



ASSEMBLY DIMENSIONS

VALVE WITH MECHANICAL JOYSTICK



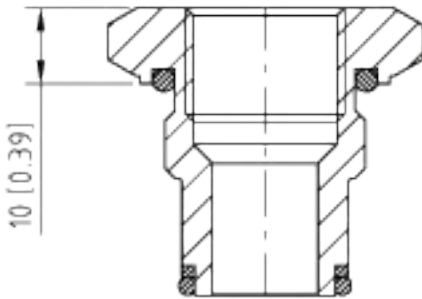
ACCESSORIES

High pressure carry-over adapter, should be installed in the T1-port when two or more valves are used in the same circuit. T3 must be connected to tank.

Tank port reduction adapter, can be installed in the T1-port when the thread size is to be reduced

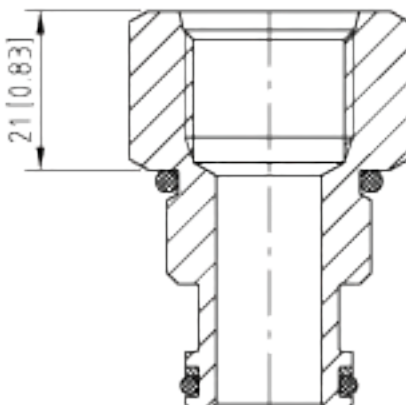
Type BSP 3/4" to BSP 1/2"
 Part No. 4S-4031

Type BSP 1/2" to BSP 3/8"
 Part No.10348-4S

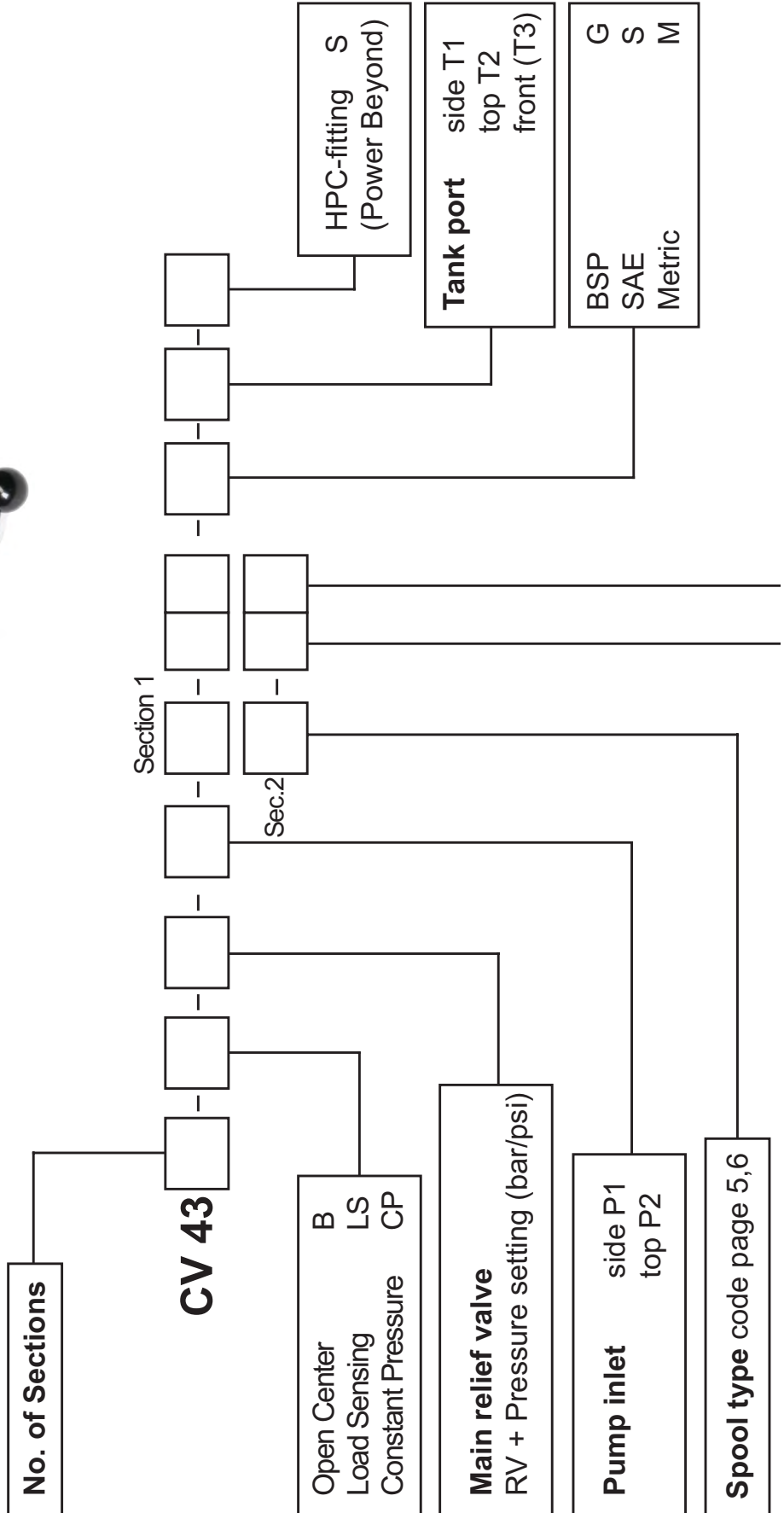


Type SAE # 12 to SAE # 10
 Part No. 10715-4S

SAE # 10 to SAE # 8
 Part No.10349-4S



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