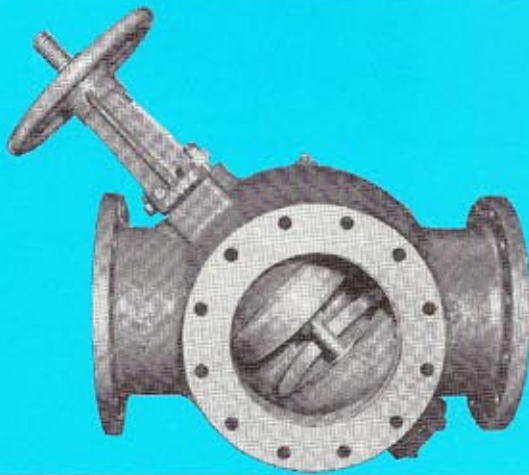


# Tate Andale Model 245A Threeway Disc Valve



## Description

Tate Andale Model 245A Threeway Disc Valves are used where a stream from a single line is to be directed to either of two parallel lines, or to both. Used where two single-flow valves, if closed simultaneously, would cause danger or destruction. To connect two safety valves, or safety discs, in parallel, on a single pressure vessel. To valve vapor from a single evaporator to two condensers in parallel.

## Typical Valve Specification

The Valve shall be a Type 245A Threeway Valve as manufactured by Tate Andale, Inc. and suitable for a working pressure of 125/150 psig (cast iron/cast steel) at 200° F.

The valve body shall be cast iron or cast steel construction with \_\_\_\_\_ 125/150 #ANSI flanged connections. The valve seats shall be steel, bronze or cast iron, the valve disc shall be bronze, cast iron or cast steel, and the valve spindle shall be bronze or steel.

## Standard Materials

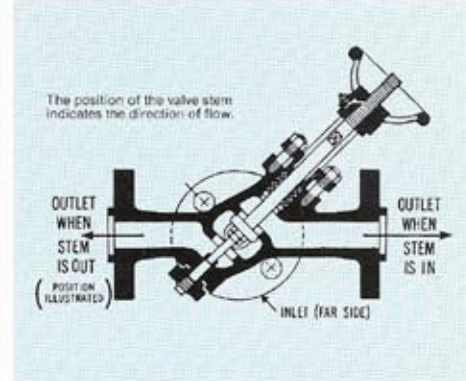
Body ..... Cast Iron, Cast Steel  
Trim ..... Bronze, Steel

## Standard Features

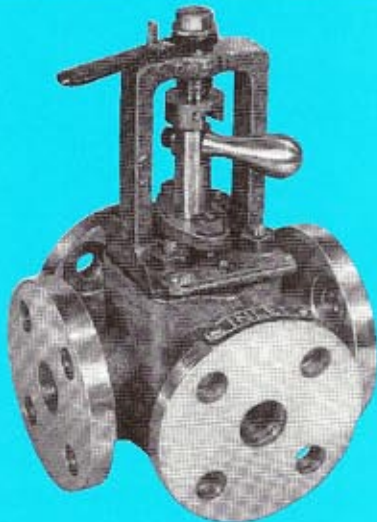
- External screw & yoke
- Pressed in valve seats
- Valve position is indicated by the position of the valve stem

## Optional Features

- Higher design pressures
- Chain operation
- Automatic operation
- Electric Motor Pneumatic
- Stainless steel trim
- Hastalloy C trim
- Inconel/Monel trim
- Other body and trim materials for special applications



# Tate Andale Model 401V Fourway Valve



## Description

The Tate Andale Model 401 Fourway Valve is a complete self-contained non-lubricated valve for installation in a service line piped to convert and valve the service line to two parallel passages and operated to direct flow through either. This valve can also be piped to convert the service line to a single external return circuit and operated to change flow to either direction through the circuit. This valve is used where prevention of flow interruption is essential, for protection of equipment and where contamination by the induction of a foreign lubricant film for plug suspension is unacceptable.

## Typical Valve Specification

The valve shall be a Type 401V Fourway Valve as manufactured by Tate Andale, Inc. and suitable for a working pressure of 125/150 psig (cast iron/cast steel) at 200° F.

The valve body shall be cast iron or cast steel construction with \_\_\_\_\_ 125/150 #ANSI flanged connections, cast iron or

cast steel valve plug, steel bonnet, bronze gland and an aluminum bronze jack screw, shall be equipped with a lifting mechanism to minimize wear and allow ease of turning and the plug shall be of conical design to assure maximum plug seal on the closed circuit.

## Standard Materials

Body & Plug ... Cast Iron, Cast Steel  
Bonnet ..... Steel  
Gland ..... Bronze  
Jack Screw ... Aluminum Bronze

## Optional Features

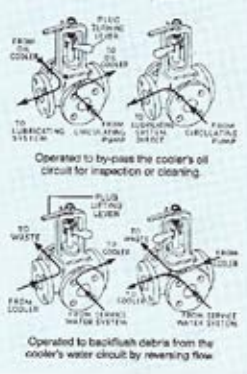
- Cast bronze body and plug
- Higher design pressures
- Butt weld connections

## Standard Features

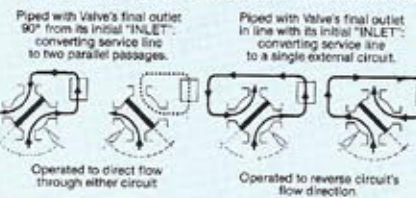
- Valve plug and stem are cast in one piece
- Plug rotation is limited to 90° with positive stops
- Positive valve position indication
- Plug lifting device to minimize wear and allow ease of turning
- Conical plug design to assure maximum plug seal on the closed circuit

## TYPICAL APPLICATIONS

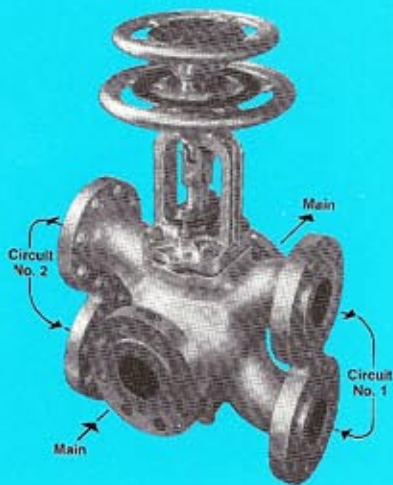
Installations in the oil and cooling water service lines of a lubricating oil cooling and distribution system



## PIPING AND OPERATING DIAGRAMS



# Tate Andale 140HV Double Circuit Valve



## Description

The Tate Andale Type 104HV Double Circuit Valve is a duplex, three-way, single plug, six connection valve having a jacking device for raising and reseating the plug and a turning wheel or lever for controlling the flow to and from two (2) pieces of parallel equipment. The Type 104HV Valve is available in sizes 1" through 8" for system pressures up to 350 psig.

## Typical Valve Specification

The valve shall be a Type 104HV Double Circuit Valve as manufactured by Tate Andale, Inc. and suitable for a working pressure of 150 psig at 200° F.

The valve body shall be cast steel or stainless steel construction with \_\_\_\_\_ 150 #ANSI raised face flanged connections. The valve plug shall be cast steel or stainless steel, shall be of conical design to assure maximum plug seal on the closed circuit, shall be equipped with a lifting mechanism to minimize wear and allow ease of turning and shall be designed so as to automatically vent and drain the closed circuit.

## Standard Materials

Body, Bonnet & Plug ..... Cast Steel

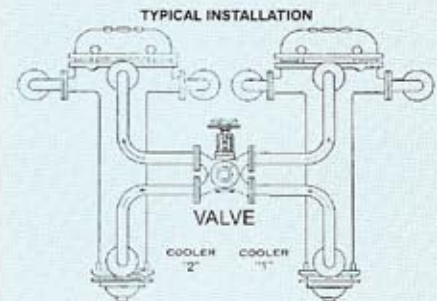
## Standard Features

- Design prevents interruption of flow.
- One movement controls the inlets and outlets of two parallel circuits under pressure
- Valve lifting mechanism affords ease of turning and minimizes wear.
- Only 90° plug rotation completely changes flow from one side to the other; intermediate plug positions direct the flow to both sides.

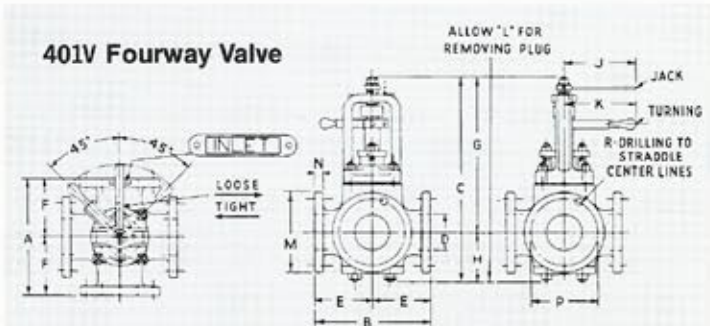
- Rugged construction prevents piping stresses from distorting the valve seating.
- Conical plug design assures maximum plug seal on the closed circuit.
- Two wheels: lower wheel lifts and seats the plug; upper wheel turns the plug; both are marked to assure positive identification and flow direction.
- Universal type plug linkage assures alignment in the body.

## Optional Features

- Higher design pressure
- Lever operation
- Stainless steel body and plug



OTHER MODELS AND HIGHER PRESSURE DESIGNS AVAILABLE IN VIRTUALLY ANY MATERIAL.



**245A** Cast Iron 125 PSIG Design ANSI Class 125 Flanges  
**245A** Cast Steel 150 PSIG Design ANSI Class 150 Flanges

**Model 401V Dimensions 125 PSIG (Cast iron)**

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†
1"	7 1/2	5	10 1/4	3 1/4	4 1/4	2 1/2	2 1/2	8 1/2	2 1/2	8 1/4	7 1/4	4	—	4 1/4	7 1/4	3/8	30
1 1/2"	9 1/4	6	13 1/4	4	5 1/4	3	3	10 1/4	3 1/4	10 1/4	9	8 1/2	5	—	4 1/4	5	40
1 3/4"	9 1/4	6	13 1/4	4	5 1/4	3	3	10 1/4	3 1/4	10 1/4	9	8 1/2	5	—	4 1/4	5	45
2"	11 1/4	7 1/4	15 1/4	5	6 1/4	3 1/2	3 1/2	12 1/4	4 1/4	12 1/4	9 1/4	9	5	—	6	5/8	55
2 1/2"	13	10 1/4	17 1/4	6 1/4	6 1/4	5 1/4	5 1/4	11 1/4	5	10 1/4	12 1/4	10 1/4	7	3 1/2	7	1 1/4	80
3"	13	10 1/4	17 1/4	6 1/4	6 1/4	5 1/4	5 1/4	11 1/4	5	10 1/4	12 1/4	10 1/4	7	3 1/2	7 1/4	1 1/4	90
4"	16	11 1/4	23	8	8	6 1/2	6 1/2	15 1/4	7	14 1/4	16 1/4	13 1/4	6	4 1/2	9	1 1/2	150
6"	19 1/2	16 1/4	27 1/4	9 1/4	9 1/4	8 1/2	8 1/2	18 1/4	8 1/2	17 1/4	19 1/4	16 1/4	10	6 1/2	11	1	300
8"	24	21	34	12	12	11	11	21 1/4	11	20 1/4	23 1/4	19 1/4	12	8 1/2	13 1/4	1 1/4	450
10"	28	25	38	14	14	14	14	24 1/4	12 1/4	23 1/4	26 1/4	21 1/4	12	10	16 1/4	6 1/4	675
12"	33	28 1/4	45	16 1/4	16 1/4	15 1/4	13	26 1/4	14 1/4	27	30 1/4	24	16	12 1/4	19	1 1/4	1000

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†
3"	11	11	18 1/4	3	5 1/2	3 1/2	3 1/2	13 1/4	4 1/2	6 1/2	6	27	7 1/2	5	6	4 1/4	120
4"	13	13	22 1/4	4	6 1/2	4 1/2	4 1/2	16 1/4	5 1/2	6	8	33	8	6 1/4	7 1/4	8 1/4	220
5"	15	15	26 1/4	5	7 1/2	5 1/2	5 1/2	20 1/4	6	7 1/2	10	39	10	7 1/4	8 1/4	8 1/4	300
6"	18	18	29 1/4	6	8	6	6	21 1/4	7 1/2	8 1/2	12	43	11	8 1/4	9 1/4	8 1/4	400
8"	18	18	34	8	9	8	8	24 1/4	9 1/2	10 1/2	14	52	13 1/4	11 1/4	11 1/4	8 1/4	575

**2453A** Cast Steel 300 PSIG Design ANSI Class 300 Flanges

**Model 401V Dimensions 150 PSIG (Cast Bronze)**

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†
1"	9 1/4	5 1/4	11 1/4	4 1/4	5 1/4	2 1/2	2 1/2	8 1/4	2 1/2	7 1/4	8 1/4	7 1/4	4	—	4 1/4	5 1/4	40
1 1/2"	11 1/4	6 1/4	14 1/4	5 1/4	6 1/4	2 1/2	2 1/2	9 1/4	2 1/2	8 1/4	9 1/4	8 1/4	6	—	5 1/4	6 1/4	50
1 3/4"	11 1/4	6 1/4	14 1/4	5 1/4	6 1/4	2 1/2	2 1/2	9 1/4	2 1/2	8 1/4	9 1/4	8 1/4	6	—	5 1/4	6 1/4	60
2"	15 1/4	10 1/4	20	7 1/4	7 1/4	5	5	12 1/4	3 1/4	12 1/4	12 1/4	12 1/4	7	3 1/2	8 1/4	1 1/4	100
2 1/2"	17 1/4	11 1/4	21 1/4	8 1/4	8 1/4	5 1/4	5 1/4	13 1/4	4 1/4	13 1/4	13 1/4	13 1/4	8	4 1/4	7 1/4	1 1/4	130
3"	18 1/4	12 1/4	24 1/4	9 1/4	9 1/4	6 1/4	6 1/4	15 1/4	5 1/4	15 1/4	15 1/4	15 1/4	9	4 1/4	8 1/4	1 1/4	225
4"	22	14 1/4	27 1/4	11 1/4	11 1/4	7 1/4	7 1/4	17 1/4	6 1/4	17 1/4	17 1/4	17 1/4	12	5	10	1 1/4	350
6"	27 1/4	20 1/4	35 1/4	12 1/4	14 1/4	11 1/4	11 1/4	22 1/4	8 1/4	22 1/4	22 1/4	22 1/4	16	7	12 1/4	1 1/4	650

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†	
3" P.T.	5	5	8 1/4	2 1/2	2 1/2	6 1/4	2	3 1/2	2	3 1/2	2	50 1/2	—	—	—	—	Screwed	12
4" P.T.	5	5	9 1/4	2 1/2	2 1/2	7 1/4	2 1/2	3 1/2	3 1/2	3 1/2	14	—	—	—	—	—	Screwed	20
1" P.T.	6	6	12 1/4	3	3	10	2 1/2	4	4	4	18	—	—	—	—	—	Screwed	28
1 1/2" P.T.	6	6	12 1/4	3	3	10	2 1/2	4	4	4	18	—	—	—	—	—	Screwed	32
2" P.T.	7	7	14	3 1/2	3 1/2	12 1/4	3 1/2	5	4	4	20	—	—	—	—	—	Screwed	46
2 1/2"	9	9	14	4 1/4	4 1/4	13 1/4	3 1/2	5	4	4	20	6	1 1/4	4 1/4	4 1/4	6 1/4	60	
3"	10	10	18 1/4	5 1/4	5 1/4	13 1/4	4 1/4	6 1/4	6 1/4	6 1/4	27 1/4	7 1/4	5 1/4	5 1/4	4 1/4	4 1/4	110	
4"	11	11	18 1/4	5 1/4	5 1/4	13 1/4	4 1/4	6 1/4	6 1/4	6 1/4	27 1/4	7 1/4	5 1/4	5 1/4	4 1/4	4 1/4	120	
4 1/2"	13	13	22 1/4	6 1/4	6 1/4	16 1/4	5 1/4	8 1/4	8 1/4	8 1/4	33 1/4	9	6 1/4	7 1/4	7 1/4	6 1/4	220	
5"	15	15	26 1/4	7 1/4	7 1/4	20 1/4	6	10 1/4	10 1/4	10 1/4	39 1/4	10 1/4	7 1/4	8 1/4	8 1/4	8 1/4	300	
6"	18	18	29 1/4	8 1/4	8 1/4	21 1/4	7 1/4	10 1/4	10 1/4	10 1/4	43 1/4	11 1/4	8 1/4	9 1/4	9 1/4	8 1/4	400	
8"	18	18	34	8 1/4	8 1/4	24 1/4	9 1/4	14 1/4	14 1/4	14 1/4	52 1/4	13 1/4	1 1/4	11 1/4	11 1/4	8 1/4	575	

**2453A** Cast Steel 600 PSIG Design ANSI Class 600 Flanges

**Model 401V Dimensions 150 PSIG (Cast Steel)**

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†
1"	10 1/4	6	11 1/4	4 1/4	5 1/4	2 1/2	2 1/2	8 1/4	2 1/2	7 1/4	8 1/4	7 1/4	4	—	4 1/4	5 1/4	40
1 1/2"	12	6 1/4	14 1/4	5 1/4	6 1/4	2 1/2	2 1/2	9 1/4	2 1/2	8 1/4	9 1/4	8 1/4	6	—	5 1/4	6 1/4	50
1 3/4"	12	6 1/4	14 1/4	5 1/4	6 1/4	2 1/2	2 1/2	9 1/4	2 1/2	8 1/4	9 1/4	8 1/4	6	—	5 1/4	6 1/4	60
2"	16	11	20	7 1/4	7 1/4	5	5	12 1/4	3 1/4	12 1/4	12 1/4	12 1/4	7	3 1/2	8 1/4	1 1/4	100
2 1/2"	18	12 1/4	21	8 1/4	8 1/4	5 1/4	5 1/4	13 1/4	4 1/4	13 1/4	13 1/4	13 1/4	8	4 1/4	7 1/4	1 1/4	130
3"	19	13	24 1/4	9 1/4	9 1/4	6 1/4	6 1/4	15 1/4	5 1/4	15 1/4	15 1/4	15 1/4	9	4 1/4	8 1/4	1 1/4	225
4"	23	14 1/4	27 1/4	11 1/4	11 1/4	7 1/4	7 1/4	17 1/4	6 1/4	17 1/4	17 1/4	17 1/4	12	5	10 1/4	1 1/4	350
6"	28 1/4	21	35 1/4	13 1/4	15 1/4	11 1/4	11 1/4	24 1/4	8 1/4	24 1/4	24 1/4	24 1/4	16	7	14	2 1/4	650

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†	
1 1/2"	5	5	8 1/4	2 1/2	2 1/2	6 1/4	2	3 1/2	2	3 1/2	2	50 1/2	—	—	—	—	Screwed	12
2"	6 1/4	6 1/4	9 1/4	3 1/4	3 1/4	7 1/4	2 1/2	3 1/2	3 1/2	3 1/2	14	—	—	—	—	—	Screwed	20
1" P.T.	7	7	12 1/4	3	3	10	2 1/2	4	4	4	18	—	—	—	—	—	Screwed	28
1 1/2" P.T.	7 1/4	7 1/4	12 1/4	3 1/4	3 1/4	10	2 1/2	4	4	4	18	—	—	—	—	—	Screwed	32
2" P.T.	9	9	14	3 1/2	3 1/2	12 1/4	3 1/2	5	4	4	20	—	—	—	—	—	Screwed	46
2 1/2"	10	10	18 1/4	4 1/4	4 1/4	13 1/4	4 1/4	6 1/4	6 1/4	6 1/4	27 1/4	7 1/4	5 1/4	5 1/4	4 1/4	4 1/4	60	
3"	11	11	18 1/4	4 1/4	4 1/4	13 1/4	4 1/4	6 1/4	6 1/4	6 1/4	27 1/4	7 1/4	5 1/4	5 1/4	4 1/4	4 1/4	110	
4"	13	13	22 1/4	5 1/4	5 1/4	16 1/4	5 1/4	8 1/4	8 1/4	8 1/4	33 1/4	9	6 1/4	7 1/4	7 1/4	6 1/4	220	
5"	15	15	26 1/4	6 1/4	6 1/4	20 1/4	6	10 1/4	10 1/4	10 1/4	39 1/4	10 1/4	7 1/4	8 1/4	8 1/4	8 1/4	300	
6"	18	18	29 1/4	7 1/4	7 1/4	21 1/4	7 1/4	10 1/4	10 1/4	10 1/4	43 1/4	11 1/4	8 1/4	9 1/4	9 1/4	8 1/4	400	
8"	18	18	34	8 1/4	8 1/4	24 1/4	9 1/4	14 1/4	14 1/4	14 1/4	52 1/4	13 1/4	1 1/4	11 1/4	11 1/4	8 1/4	575	

**2454A** Cast Steel 600 PSIG Design ANSI Class 600 Flanges

SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	WT.†
1"	12 1/4	7 1/4	16 1/4	5 1/4	6 1/4	3 1/4	3 1/4	12 1/4	4 1/4	10 1/4	10 1/4	6	—	4 1/4	5 1/4	6 1/4	65
1 1/2"	14 1/4	8 1/4	18 1/4	6 1/4	7 1/4	3 1/4	3 1/4	13 1/4	5 1/4	12 1/4	13 1/4	7	—	5 1/4	6 1/4	7 1/4	95
1 3/4"	14 1/4	8 1/4	18 1/4	6 1/4	7 1/4	3 1/4	3 1/4	13 1/4	5 1/4	12 1/4	13 1/4	7	—	5 1/4	6 1/4	7 1/4	100
2"	17 1/4	10 1/4	22 1/4	7 1/4	8 1/4	4 1/4	4 1/4	14 1/4	6 1/4	13 1/4	15 1/4	8	4	8 1/4	9 1/4	10 1/4	160
2 1/2"	20 1/4	11 1/4	27 1/4	8 1/4	9 1/4	5 1/4	5 1/4	16 1/4	7 1/4	16 1/4	20 1/4	10	4 1/2	9 1/4	10 1/4	13 1/4	380
3"	21 1/4	12 1/4	27 1/4	9 1/4	10 1/4	5 1/4	5 1/4	17 1/4	8 1/4	18 1/4	20 1/4	10	4 1/2	9 1/4	10 1/4	13 1/4	400
4"	25 1/4	14 1/4	34 1/4	11 1/4	12 1/4	6 1/4	6 1/4	20 1/4	10 1/4	20 1/4	24 1/4	12	5 1/4	10 1/4	11 1/4	14 1/4	600
6"	33 1/4	20 1/4	42 1/4	15 1/4	17 1/4	8 1/4	8 1/4	27 1/4	12 1/4	27 1/4	32 1/4	16	7 1/4				