

# Series W-TDV-16Z/25Q(DN50-DN500)

## Triple Duty Valve

### ◆ Application

Series W-TDV valve is designed for petroleum, chemical engineering, metallurgy and water treatment industries. It is a 3 in 1 valve that plays the roles of global valve, check valve and throttle valve.

### ◆ Features

- Numerical indicator of opening rate
- EPDM rubber is vulcanized to adhere directly to the ductile iron valve disc. This structure can offset the impact caused by shutting off the valve disc, achieving complete sealing.

### ◆ Operating Principles

Fitted with a quick closing spring, the valve can be closed speedily to prevent great noise from water hammer. It also prevents fluid from flowing backwards. Moreover, through regulating the opening rate shown on the indicator, the pump's output flow can be controlled. When working as a global valve, the valve can cut off the flow by means of closing the valve stem.

### ◆ Technical Specification

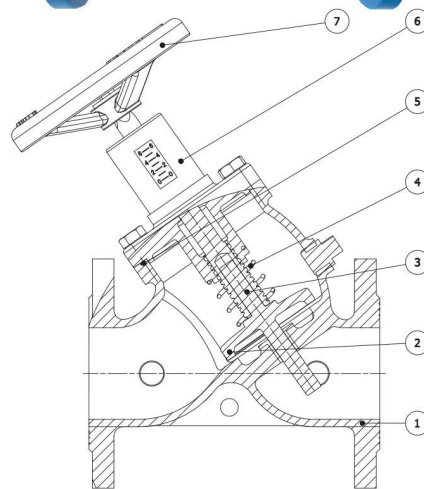
<b>Dimensions:</b>	DN50-DN500
<b>Working Temperature:</b>	-20°C ~120°C
<b>Working Pressure:</b>	PN16/PN25
<b>Fluid Medium:</b>	Water / Ethylene Glycol
<b>Connection:</b>	Flange Connection
<b>Connection Standard:</b>	GB/T 17241.6 EN1092-2
<b>Testing Standard:</b>	GB/T 13927-2008

<b>Materials:</b>	
-Valve Body:	Cast Iron(PN16) Ductile Iron(PN25)
-Valve Disc:	Ductile Iron Coated with EPDM
-Valve Stem:	Stainless Steel 401
-Spring:	Stainless Steel 304
-Seal Ring:	EPDM
-Calibration Facility:	Plastic
-Handwheel:	Carbon Steel(DN50-DN300) Cast Iron(DN350-DN500)

### ◆ Technical Specification

#### Coding Rules:

		W-	T D V	0 5 0-	1 6	Z
W	WATTS					
TDV	Triple Duty Valve					
Size						
050-DN50	065-DN65					
080-DN80	100-DN100					
125-DN125	150-DN150					
200-DN200	250-DN250					
300-DN300	350-DN350					
400-DN400	450-DN450					
500-DN500						
Pressure Class						
PN16	PN25					
Body Material						
Z-Cast Iron	Q-Ductile Iron					



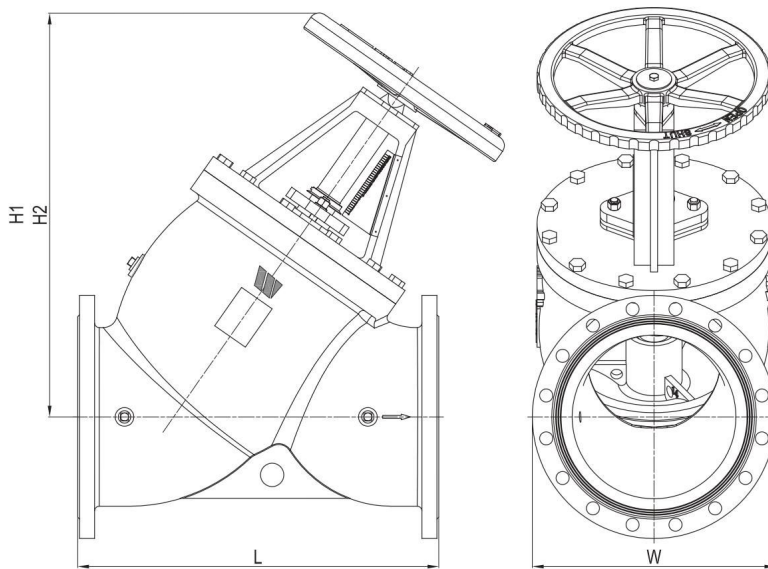
Type	Size	Kvs	EDP Code
W-TDV050-16Z	DN50	59.5	616P7054
W-TDV050-25Q			616P7055
W-TDV065-16Z	DN65	81.9	616P7059
W-TDV065-25Q			616P7060
W-TDV080-16Z	DN80	102.4	616P7064
W-TDV080-25Q			616P7065
W-TDV100-16Z	DN100	169.0	616P7069
W-TDV100-25Q			616P7070
W-TDV125-16Z	DN125	341.9	616P7074
W-TDV125-25Q			616P7075
W-TDV150-16Z	DN150	409.4	616P7079
W-TDV150-25Q			616P7080
W-TDV200-16Z	DN200	797.0	616P7084
W-TDV200-25Q			616P7085
W-TDV250-16Z	DN250	1150.0	616P7089
W-TDV250-25Q			616P7090
W-TDV300-16Z	DN300	1774.0	616P7094
W-TDV300-25Q			616P7095
W-TDV350-16Z	DN350	2538.0	616P7099
W-TDV350-25Q			616P7100
W-TDV400-16Z	DN400	2645.0	616P7120
W-TDV400-25Q			616P7105
W-TDV450-16Z	DN450	2795.0	616P7125
W-TDV450-25Q			616P7110
W-TDV500-16Z	DN500	4791.0	616P7130
W-TDV500-25Q			616P7115

开度	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN450	DN500
10%	18.8	25.9	32.4	53.4	108.1	129.5	252.0	363.7	561.0	802.6	836.4	883.9	1515.0
20%	26.6	36.6	45.8	75.6	152.9	183.1	356.4	514.3	793.4	1135.0	1182.9	1250.0	2142.6
30%	32.6	44.9	56.1	92.6	187.3	224.2	436.5	629.9	971.7	1390.1	1448.7	1530.9	2624.1
40%	37.6	51.8	64.8	106.9	216.2	258.9	504.1	727.3	1122.0	1605.2	1672.8	1767.7	3030.1
50%	42.1	57.9	72.4	119.5	241.8	289.5	563.6	813.2	1254.4	1794.6	1870.3	1976.4	3387.7
60%	46.1	63.4	79.3	130.9	264.8	317.1	617.4	890.8	1374.1	1965.9	2048.8	2165.0	3711.1
70%	49.8	68.5	85.7	141.4	286.1	342.5	666.8	962.2	1484.2	2123.4	2213.0	2338.5	4008.4
80%	53.2	73.3	91.6	151.2	305.8	366.2	712.9	1028.6	1586.7	2270.1	2365.8	2499.9	4285.2
90%	56.4	77.7	97.1	160.3	324.4	388.4	756.1	1091.0	1683.0	2407.8	2509.3	2651.6	4545.1
100%	59.5	81.9	102.4	169.0	341.9	409.4	797.0	1150.0	1774.0	2538.0	2645.0	2795.0	4791.0

## ◆ Installation

- (1) The valve's rated parameters should match the equipment's. Make sure that the valve's rated flow satisfies the actual demand.
- (2) The installer must be trained or experienced so as to operate the installation correctly.
- (3) A thorough check after installation is needed to ensure no errors.
- (4) A thorough cleaning before installation is needed (chemical reagent can be applied if it is necessary) to ensure that there is not any rusting or dirt in the pipe. All the filters must be removed before washing to keep the pipe smoothly open.
- (5) When beginning to wash the system, it is suggested to install the valve on a temporary pipe. After finishing system cleaning, then move the valve back and install it on the system's pipe.
- (6) Use flanges and fasteners that meet the standards to connect the valve.

## Installation Dimensions:



Size	L(mm)	H1(mm)	H2(mm)	W(mm)		Weight(Kg)	
				PN16	PN25	PN16	PN25
DN50	213	275	300	165	165	13.5	15.0
DN65	250	289	314	185	185	20.0	22.0
DN80	254	301	326	200	200	26.0	28.5
DN100	368	362	387	220	235	44.5	47.0
DN125	407	399	431	250	270	71.0	74.0
DN150	457	436	460	385	300	89.0	92.0
DN200	546	625	675	340	360	158.0	161.0
DN250	648	679	758	405	425	251.0	256.0
DN300	762	810	928	460	485	357.0	362.0
DN350	772	863	986	520	555	500.5	507.0
DN400	858	958	1085	580	620	760.0	768.0
DN450	938	1103	1268	640	670	907.0	915.0
DN500	1050	1193	1384	715	730	1056.0	1065.0