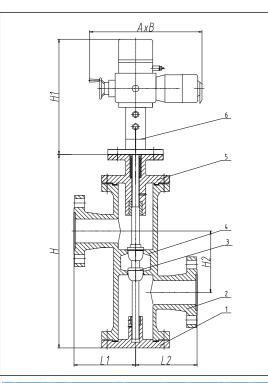
T941-100

Control Valves

## Control Valves

## **Power-Station Purpose Feeding Water Control Valve**



#### Purpose

This valve is suitable for installing on the feeding water pipeline of boiler and the bypass of the cooling water of the high pressure heater. Its main function is to adjust the flow rate, apply with apply with the angle-travel or straight-travel type actuator.

#### Structure Introduction

- 1. The valve is mainly made of body, seat, sleeve, support, stem and bonnet and so on, apply with the electric actuator and pneumatic actuator. The picture above only present electric types.
- 2.The sealing ring between the seat applys with the flexible graphite with good compressibility and sealing performance, when the valve is closed, it hardly has the leakage.
- 3. The valve is easily to be disassembled, and the inside parts are easily to be replaced and maintained.

#### Installation and Operation Introduction

- 1. The valve shall be installed on the pipeline vertically, and the flow direction on the valve body shall same to the installation direction.
- 2.In installation, the opening and closing postion of the electric actuator shall same to the valve.
- 3. When clean the pipeline, some necessary measures shall be took in order to prevent the valve from sticking because of the remian thing between the disc and seat, which will reduce the working life.

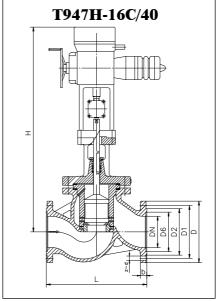
#### **Main Part Material**

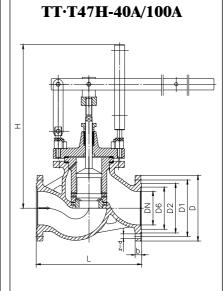
1. Bottom Cover	2. Body	3. Stem	4. Seat	5. Bonnet	6. Actuator
20	20	1Cr18Ni9Ti	1Cr18Ni9Ti	WCB	电动 / 气动

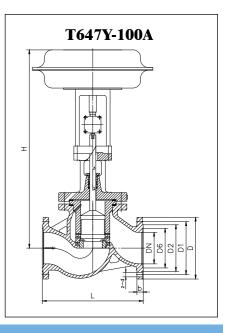
### **Main Structure and Connection Dimension**

Туре	(mm) Nominal Diameter	25	32	40	50	65	80	100	125	150	200
,	Α	460			530			630			
	В		23	30			230			260	
	H1		49	90			540			625	
T941-100	Н	465	465	485	500	575	575	630	805	895	900
	L1	130	130	150	150	200	200	215	235	250	280
	L2	130	130	170	170	200	200	215	235	250	280
	H2	150	150	150	150	200	200	200	330	330	330

# Power-Station Purpose Feeding Water Control Valve







T947H-16C/40

T647Y-100A

TT·T47H-40A/100A

#### Purpose

This valve is suitable for installing on the feeding water pipeline of boiler and the bypass of the cooling water of the high pressure heater. Its main function is to adjust the flow rate, apply with apply with the angle-travel or straight-travel type actuator.

#### Structure Introduction

- 1. The valve is mainly made of body, seat, sleeve, support, stem and bonnet and so on.
- 2.CoMParing with HF·T47H-100 series, this valve had made the great improvement with the coMPacter structure.
- 3. The disc is installed inside of the sleeve type seat, guided by the seat orifice. The valve adjusts the flow by up and down vertical movement by the disc, it has the advantages of anti-vibration, anti-abrasion and small leakage and so on.
- 4.The sleeve is designde to have many kinds of different flow passing area, which can meet many requirement of many different differential pressure.
- 5. The valve is easily to be disassembled, and the inside parts are easily to be replaced and maintained.

#### Installation and Operation Introduction

- 1. The valve must be installed on the pipeline vertically, connected with flange.
- 2. The flow direction on the valve body shall same to the installation direction.
- 3.In installation, the opening and closing postion of the electric actuator shall same to the valve.
- 4. When clean the pipeline, some necessary measures shall be took in order to prevent the valve from sticking because of the remian thing between the disc and seat, which will reduce the working life.

#### **Main Part Material**

1. Body	2. Seat	3. Plug	4. Sleeve	5. Bonnet	6. Stem	
WCB	20Cr13	12Cr18Ni9	20Cr13	WCB	20Cr13	

Control Valves

## **Power-Station Purpose Feeding Water Control Valve**

## **Performance Data**

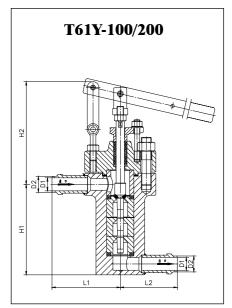
Туре	(mm) Nominal Diameter	△ P (MPa) Differential Pressure	(Kv)	Medium	Temp	Flow Characteristic	Travelling	Actuator
	50	2.0	2.72	-Water	≤250	-Equal Percentage	18	250Nm
TT-T47H- 40A	80	3.0	16.66	-Water	≤250	-Equal Percentage	30	250Nm
	125	1.5	33.38	-Water	≤250	-Equal Percentage	30	250Nm
	80	0.5	68	-Water	≤250	-Equal Percentage	40	6.4KN
T047U 40	125	0.5	175	-Water	≤250	-Equal Percentage	60	6.4KN
T947H-40	150	0.5	275	-Water	≤250	-Equal Percentage	40	6.4KN
	200	0.5	360	-Water	≤250	-Equal Percentage	60	6.4KN
	20	0.5	2.8	-Water	≤250	-Equal Percentage	18	250Nm
	32	0.1	6.3, 10	-Water	≤250	Linear	30	250Nm
		0.2	29	-Water	≤250	-Equal Percentage	30	250Nm
TT-T47H- 100A	50	0.4	21	-Water	≤250	-Equal Percentage	30	250Nm
		0.8	15	-Water	≤250	-Equal Percentage	30	250Nm
	100	3.5	75	-Water	≤250	-Equal Percentage	30	250Nm
	125	1.5	36	-Water	≤250	-Equal Percentage	30	250Nm
	15	0.4	2.9	-Water	≤250	-Equal Percentage	10	4.0KN
	32	0.8	10	-Water	≤250	-Equal Percentage	25	6.4KN
TT-T947H-	50	0.598	20	-Water	≤250	-Equal Percentage	30	4.0KN
100A	50	1.0	23	-Water	≤250	Linear	30	6.4KN
	80	3.5	47, 91	-Water	≤250	-Equal Percentage	30	6.4KN
	100	3.5	91, 146	-Water	≤250	-Equal Percentage	30	6.4KN
			17	-Water	≤250	-Equal Percentage	30	4.0KN
	50	1.2	24	-Water	≤250	-Equal Percentage	30	4.0KN
			44	-Water	≤250	-Equal Percentage	30	4.0KN
			47	-Water	≤250	-Equal Percentage	40	6.4KN
T647Y- 100A	80	3.5	68	-Water	≤250	-Equal Percentage	40	6.4KN
			91	-Water	≤250	-Equal Percentage	40	6.4KN
			68	-Water	≤250	-Equal Percentage	40	6.4KN
	100	1.5	98	-Water	≤250	-Equal Percentage	40	6.4KN
			175	-Water	≤250	-Equal Percentage	40	6.4KN
	405	0.5	175	-Water	≤250	-Equal Percentage	40	6.4KN
T947H- 16C	125	0.5	275	-Water	≤250	-Equal Percentage	40	6.4KN
	300	0.5	1000	-Water	≤250	-Equal Percentage	100	16.0KN

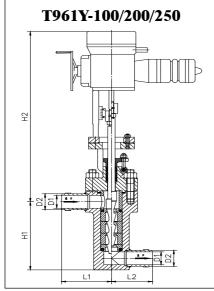
## **Power-Station Purpose Feeding Water Control Valve**

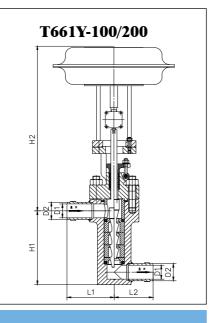
## **Main Structure and Connection Dimension**

Type	(mm) Nominal Diameter	L	Н	D	D1	D2	D6	b	Z-d	(kg) Weight
	50	230	480	165	125	100	88	20	4-18	26
TT-T47H- 40A	80	310	535	200	160	135	121	22	8-18	49
40A	125	400	580	270	220	188	176	28	8-26	79
	80	310	843	195	160	135	121	22	8-18	93
T947H-40	125	400	916	270	220	188	176	28	8-25	137
194711-40	150	480	955	300	250	218	204	30	8-25	172
	200	600	998	375	320	282	260	38	12-30	240
	20	190	380	125	90	68	51	22	4-18	13.5
	32	230	480	150	110	82	66	24	4-23	25
TT-T47H- 100A	50	300	525	195	145	112	88	28	4-25	41
	100	430	590	265	210	172	150	38	8-30	99
	125	500	610	310	250	210	176	42	8-34	149
	15	170	670	105	75	55	40	20	4-14	56
	32	230	742	150	110	82	66	24	4-23	69
TT-T947H- 100A	50	300	805	195	145	112	88	28	4-25	102
	80	380	863	230	180	148	121	34	8-25	113
	100	430	877	265	210	172	150	38	8-30	138
	50	300	820	195	145	112	88	28	4-25	83
T647Y-100A	80	380	860	230	180	148	121	34	8-25	118
	100	430	980	265	210	172	150	38	8-30	145
T04711 400	125	400	925	245	210	185	-	22	8-18	133
T947H-16C	300	864	1255	460	410	375	-	30	12-25	683

## **Power-Station Purpose Feeding Water Control Valve**







#### Purpose

This valve is suitable for desuperheater and pressure reducing desuperheater, adjustable desuerheater system, it can also be installed on the feeding water pipeline of boiler and the bypass of the cooling water of the high pressure heater. Its main function is to adjust the flow rate.

#### **Structure Introduction**

- 1. The valve is mainly made of body, seat, sleeve, support, stem and bonnet and so on, apply with the electric actuator and pneumatic actuator. The picture above only present electric types.
- 2.As for this series control valves, the seat and disc are designed out with many different structure types, it can meet many different throttle way and its flow characteristic are two types of linear and equal-percentage.
- 3. The valve is Z shape structure, multi-level throttle, high adjusting accuracy, can adjust the cooling water for many different differential pressure and flow types condition.
- 4. Every level of throttle part was made of reasonable linear type, which can prevent the cavitation and noise, and keep the adjusting steadily.
- 5. The sealing ring between the seat applys with the flexible graphite with good compressibility and sealing performance, when the valve is closed, it hardly has the leakage.

#### **Installation and Operation Introduction**

- 1. The valve must be installed on the pipeline vertically, connected with flange.
- $2. \\ \mbox{The flow direction on the valve body shall same to the installation direction.}$
- 3. In installation, the opening and closing postion of the electric actuator shall same to the valve.
- 4. When clean the pipeline, some necessary measures shall be took in order to prevent the valve from sticking because of the remian thing between the disc and seat, which will reduce the working life.

#### **Main Part Material**

1. Body	2. Seat	3. Disc	4. Sleeve	5. Bonnet
25	20Cr13	20Cr13	25	20 ORWCB

## **Power-Station Purpose Feeding Water Control Valve**

#### **Performance Data**

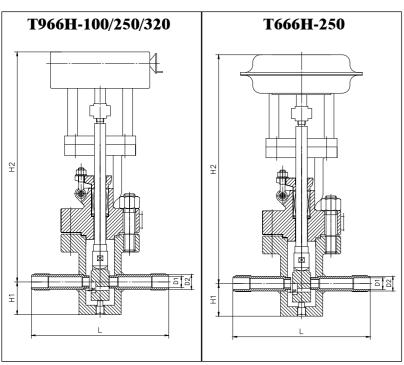
Туре	(mm) Nominal Diameter		(MPa) erentia		sure			(Kv)			(t/h) Maximal Flow	Medium	Temp	Flow Characteristic	Travelling
	20/12	1	2	3		0.16	0.4	0.63	1.0	1.6	4.3	water	≤250℃	EP	16
T61Y-100	32/20	1	2	3		1.8	2.4	3.3	4.8		13	water	≤250℃	EP	30
T61Y-200	50		1.	.0				20			45	water	≤250℃	EP	25
T961Y-100	50/30	1	2	3	4	6.3	10	14			37.8	water	≤250℃	EP	30
T961Y-200	65		3	3				16			43	water	≤250℃	EP	40
T661Y-200	65/30		5	5				17.5			48	water	≤250℃	EP	30
	85/35	1	2	3	4			29.8			80	water	<b>≤250</b> ℃	EP	30
T961Y-250	80/40		4	1				24			65	water	≤250℃	EP	40

#### **Main Structure and Connection Dimension**

Туре	(mm) Nominal Diameter	L1	L2	H1	H2	D1	D2	Electric/Pneumatic Actuator
T61Y-100	20/12	150	107	134	356	19	25	250N.m
1011-100	32/20	163	136	214	233	31	38	250N.m
	20/12	152	111	134	356	20	28	250N.m
	32/20	163	136	214	233	32	42	600N.m
T61Y-200	50/30	163	132	265	245	50	62	600N.m
	65/35	177	141	410	350	65	76	600N.m
	80	266	229	410	340	92	108	600N.m
	20/12	150	107	134	650	19	25	4.0KN
T961Y-100	32/20	163	136	214	707	31	38	4.0KN
	50	163	136	246	854	47	57	6.4KN
	20/12	150	107	134	750	19	25	4.0KN
T661Y-100	32/20	163	136	214	807	31	38	4.0KN
	50	163	136	246	984	47	57	6.4KN
	20/12	152	117	134	650	20	28	4.0KN
	32/20	163	136	214	757	32	42	6.4KN
T961Y-200	50/30	163	134	265	769	50	62	6.4KN
19011-200	65	163	136	269.5	896	65	76	6.4KN
	65/30	230	193	395	1005	67	89	16.0KN
	80/35	265	229	410	990	92	108	16.0KN
	20/12	152	117	134	750	20	28	4.0KN
	32/20	163	136	214	887	32	42	6.4KN
T0041/ 200	50/30	163	134	265	899	50	62	6.4KN
T661Y-200	65	163	136	269.5	1026	65	76	6.4KN
	65/30	230	193	395	1153	67	89	16.0KN
	80/35	265	229	410	1138	92	108	16.0KN
T961Y-250	80/40	269	230	405	995	88	108	25.0KN

T967H-250
Control Valves Control Valves

## **Power-Station Purpose Feeding Water Control Valve**



#### Purnose

This valve is suitable for installing on the spraying water pipeline of the desuperheater, and its function is to adjust the cooling water so as to reduce the temperature of the steam of the boiler, it can also used on the other pipeline of the boiler and adjust the flow.

#### **Part Material**

	Part	Material
1.	Body	25
2.	Seat	Stainless Steel+Alloy Steel
3.	Sleeve	1Cr18Ni9Ti
4.	Disc	20Cr13
5.	Disc	WCB

#### **Installation and Operation Introduction**

- 1. The valve must be installed on the pipeline vertically.
- 2.The flow direction on the valve body shall same to the installation direction.
- 3.In installation, the opening and closing postion of the electric actuator shall same to the valve.
- 4. When clean the pipeline, some necessary measures shall be took in order to prevent the valve from sticking because of the remian thing between the disc and seat, which will reduce the working life.

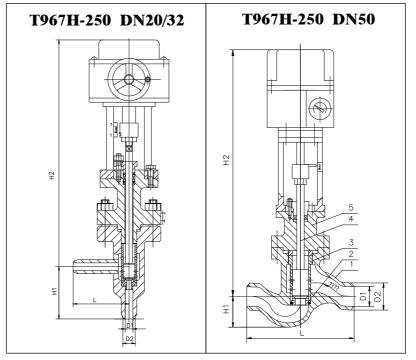
#### **Performance Data**

型号 Type	公称尺寸 (mm) Nominal Diameter	设计流量 (Kv)	设计压差△ P(MPa) Differential Pressure	介质 Medium	温度 Temp	工作行程 Travel (mm)	流量特性 Flow Characteristic	执行器 Actuator
T966H-100	32		1.8	水 -Water	≤250℃	18	EP	6.4 KN
T966H-250	50		0.8	水 -Water	≤250℃	30	EP	6.4 KN
T966H-320	20	1/1.29/1.6	1.96	水 -Water	≤250℃	10		4.0 KN
1900H-320	T966H-320 20		4.9	水 -Water	≤250℃	10	Linear	4.0 KN
T666H-250	666H-250 32	4.48	0.8	水 -Water	≤250℃	18		4.0 KN

#### **Main Structure and Connection Dimension**

Туре	( mm) Nominal Diameter	D1	D2	Ь	H1	H2	(Kg) Weight
T966H-100	32	31	38	298	70	846	85
T966H-250	50	48	62	325	92.5	875	107
T966H-320	20	20	28	285	69	780	82
T666H-250	32	32	43	298	70	855	62

## **Power-Station Purpose Feeding Water Control Valve**



#### Purnose

This valve is suitable for installing on the spraying water pipeline of the desuperheater, and its function is to adjust the cooling water so as to reduce the temperature of the steam of the boiler, it can also used on the other pipeline of the boiler and adjust the flow.

#### **Part Material**

	Part	Material
1.	Body	25
2.	Seat	Stainless Steel+Alloy Steel
3.	Sleeve	1Cr18Ni9Ti
4.	Disc	20Cr13
5.	Disc	WCB

#### **Installation and Operation Introduction**

- 1. The valve must be installed on the pipeline vertically.
- 2. The flow direction on the valve body shall same to the installation direction.
- 3.In installation, the opening and closing postion of the electric actuator shall same to the valve.
- 4. When clean the pipeline, some necessary measures shall be took in order to prevent the valve from sticking because of the remian thing between the disc and seat, which will reduce the working life.

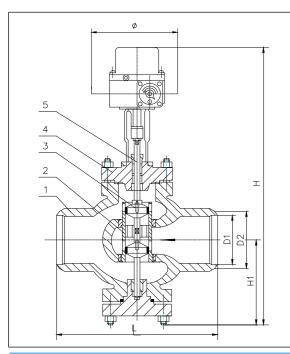
#### **Performance Data**

Туре	( mm) Nominal Diameter	(Kv)	△ P (MPa)  Differential Pressure	Medium	Temp	Travel (mm)	Flow Characteristic	Actuator
	20	3	4.9	Water	<b>≤250</b> ℃	18		6.4 KN
T967H -250	32	5/8	4.9	Water	≤250℃	18	Equal Percentage	6.4 KN
	50	8/15/35	1.8/4.9	Water	≤250℃	30		6.4 KN

#### **Main Structure and Connection Dimension**

Туре	(mm) Nominal Diameter	D1	D2	L	H1	H2	(kg) Weight
T967H-250	20	20	28	145	125	918	80
	32	29	40	145	115	865	83
	50	60	78	350	76	968	95

## **Power-Station Purpose Feeding Water Control Valve**



#### Purnose

The DN175, DN225 and DN300 series control valves are mianly installed on the feeding water pipeline of the 50MW, 100MW and 200MW bolier set with the main function is to adjust the flow rate.

#### **Structure Introduction**

- 1. The valve is mainly made of body, seat, stem and bonnet and so on.
- 2.This series control valves apply with the sleeve plug structure, the adjusting of the flow is realized by changing the flow area on the seat, and this is accomplished by vertical movement of disc to the seat.
- 3.The stem and disc are integrated to be one part, and guided by the upper and bellow sleeves
- 4.The opening and closing action of the valve are controlled by the electric actuator.

#### **Installation and Operation Introduction**

- 1. The valve shall be installed on the pipeline vertically, and the flow direction on the valve body shall same to the installation direction.

  2. In installation, the opening and closing postion of the electric actuator shall same to the valve.
- 3. When clean the pipeline, some necessary measures shall be took in order to prevent the valve from sticking because of the remian thing between the disc and seat, which will reduce the working life.

#### **Main Part Material**

1. Body	2. Seat	3. Disc	4. Bonnet	5. Stem
WCB	12Cr18Ni9	12Cr18Ni9	WCB	38CrMoALA

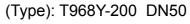
#### **Performance Data**)

	(mm)	(Kv)	$\triangle$ P (MPa)	(cm <sup>2</sup> )					
Туре	Nominal Diameter	(rv)	Differential Pressure	Maximal Flow Area	Medium	Temp	Travel (mm)	Flow Characteristic	Actuator
	150	18.8	4.5	5.23	Water	≤250℃	30		
T967H-200	175	83.55	8.8	23	Water	≤250℃	30	Equal Percentage	16.0 KN
	225	132.6	8.8	36	Water	≤250℃	50	Equal 1 Crocillage	
T967H-250	300	439	5	119	Wat er	≤250℃	60		
T967H-250A	300	331	7.84	89.8	Water	≤250℃	60	Linear	25.0 KN
T967H-250B	300	257	7.84	69.7	Water	≤250℃	60	Lincal	

#### **Main Structure and Connection Dimension**

Туре	(mm) Nominal Diameter	L	Н	H1	L1	D1	D2	(kg) Weight	Pipeline
	150	700	1653	415	630	164	198	550	Ф194×15
T967H-200	175	700	1643	405	630	187	224	550	Ф219×16
	225	800	1800	498	630	233	282	720	Ф273×20
T967H-250A/B	300	1300	2090	645	630	307	384	1984	Ф377×36

## **Power-Station Purpose Feeding Water Control Valve**



#### **Main Part Material**

	Part Name	Material		Part Name	Material
1.	Body	20 锻钢	7.	Stem	304
2.	Sleeve 1	304 氮化	8.	Spring	60Si2Mn
3.	Sleeve 2	304 氮化	9.	Packing	304
4.	Plug	304 氮化	10.	Gland	304
5.	Gasket	304	11.	Stem	WCB
6.	Bonnet	20 锻钢			

### **Performance Data**

(Kv) Flow Coefficient	Structure Characteristic	Electric Actuator	(Kg) Weight
5.95	Linear	16.0 KN	113.6

型号 (Type): T968Y-200 DN100

#### **Main Part Material**

	Part Name	Material		Part Name	Material
1.	Body	WCB	6.	Gasket	304
2.	Sleeve 1	304 氮化	7.	Bonnet	WCB
3.	Sleeve 2	304 氮化	8.	Packing	Graphite
4.	Plug	304 氮化	9.	Gland	304
5.	Stem	304	10.	Stem	WCB

#### **Performance Data**

(Kv) Flow Coefficient	Structure Characteristic	Electric Actuator	(Kg) Weight
9.9		16.0 KN	231.9
18.11	Linear	10.0 KIN	231.9

(Type): T968Y-200 DN175

#### **Main Part Material**

零	件名称Part Name	材料 Material	零件	名称 Part Name	材料 Material
1.	Bottom	WCB	6.	Bonnet	WCB
2.	Body	WCB	7.	Spring	60Si2Mn
3.	Sleeve 1	304 氮化	8.	Packing	Graphite
4.	Sleeve 2	304 氮化	9.	Gland	304
5.	Stem	304 氮化	10.	Stem	WCB

#### **Performance Data**

(Kv) Flow Coefficient	Structure Characteristic	Electric Actuator	(Kg) Weight
72	Equal-Percentage	25.0 KN	366

