

## Ball Valves Type 374-375

### Ball Valve Type 374



Ball Valve Type 374

### Product description

The Ball Valve Type 374 is an affordable and high quality manual valve that was developed specially for use in non-critical water applications. Its construction ensures simple maintenance and hence a long service life. Its compact construction is an advantage for use in confined spaces such as filtering modules.

### Function

The ball valve uses a rotating ball with a hole through it that allows straight-through flow in the open position and shuts off flow when the ball is rotated 90° to block the flow passage. This valve is used primarily for open/close functions and also for throttling services.

### Applications

- Swimming Pools, leisure parks and SPA's
- Building Technology
- Water treatment
- Fountains and municipal landscaping
- Irrigation
- Fish farming and aquaculture
- Other applications in which non aggressive chemical media is conveyed through the piping system

### Benefits/features

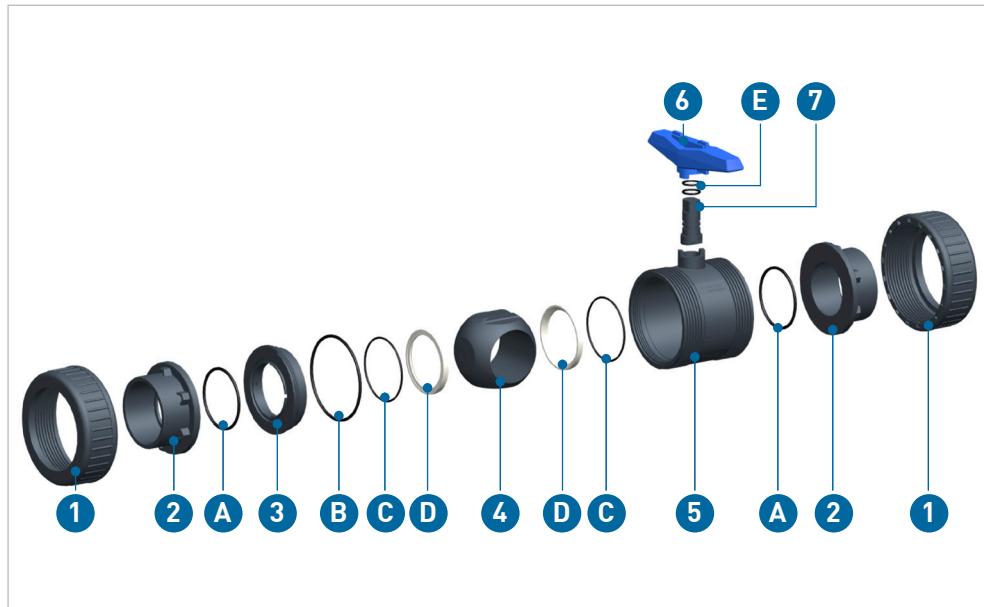
- Double union for easy installation and removal
- Ergonomic hand lever with integrated tool for removing/adjusting the union bushing
- Simple maintenance and long service life
- Simple installation and removal due to compact construction
- Low torque opening and closing
- Double O-ring sealing on the stem
- Very compact "Z" dimension
- Wide range from 16mm to 110mm and from ½" to 4"

### Flow media

Non-solid, neutral and non-aggressive media. The chemical resistance depends on the selected valve material ([see online tool ChemRes PLUS](#)).

# Datasheet

## Technical data



- 1 Coupling nut
- 2 Connecting part
- 3 Union bush
- 4 Ball
- 5 Valve body
- 6 Hand lever
- 7 Stem
- A Face seal
- B Body seal
- C Backing seal
- D Ball seat
- E Stem seal

### Specification

Dimensions	d16/DN10 – d110/DN100, $\frac{3}{8}$ " – 4"	
Materials	Valve body	PVC-U
	Lever	PVC-U
Gasket materials	O-rings EPDM	
	Ball seat	PE/PTFE
Pressure levels	DN10 – 50	PN16
	DN65 – 100	PN10
Actuation variants	Manually operated	
Connections	Solvent cement sockets	ISO, BS, ASTM/ANSI
	Threaded sockets	NPT, Rp
	Butt fusion spigots, long	PE100 SDR11 ISO
Product standard	EN ISO 16135	
Test standard	ISO 9393-2	
Approvals	QAP/ITP, NSF 61, WRAS	

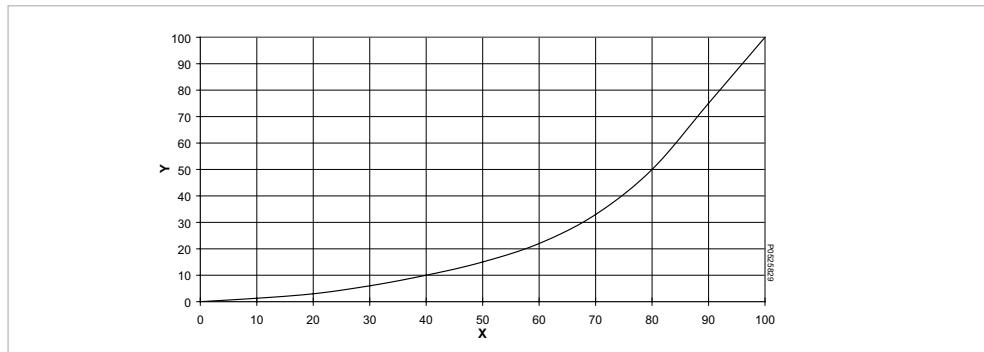
### Kv 100 values

DN (mm)	inch (inch)	d (mm)	Kv 100 (l/min)	Cv 100 (US Gal./min)	Kv 100 (m³/h)
10	$\frac{3}{8}$	16	70	4.9	4
15	$\frac{1}{2}$	20	185	12.9	11
20	$\frac{3}{4}$	25	350	24.5	21
25	1	32	700	49.0	42
32	$1\frac{1}{4}$	40	1'000	70.0	60
40	$1\frac{1}{2}$	50	1'600	112.0	96
50	2	63	3'100	217.1	186
65	$2\frac{1}{2}$	75	5'000	350.0	300
80	3	90	7'000	490.0	420
100	4	110	11'000	770.0	660

The kv values for each intermediate valve position can be determined by using the flow value characteristics and the kv 100 values.

# Datasheet

## Flow characteristics



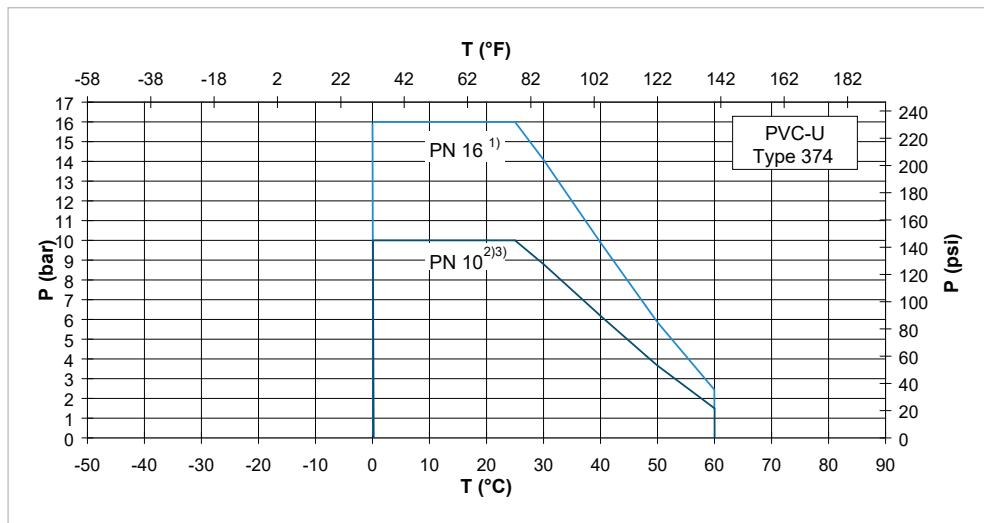
X Opening angle (%)  
Y Kv, Cv value (%)

## Pressure-temperature diagrams

The following pressure-temperature diagrams are based on a service life of 25 years and water or similar media.

T Temperature (°C, °F)

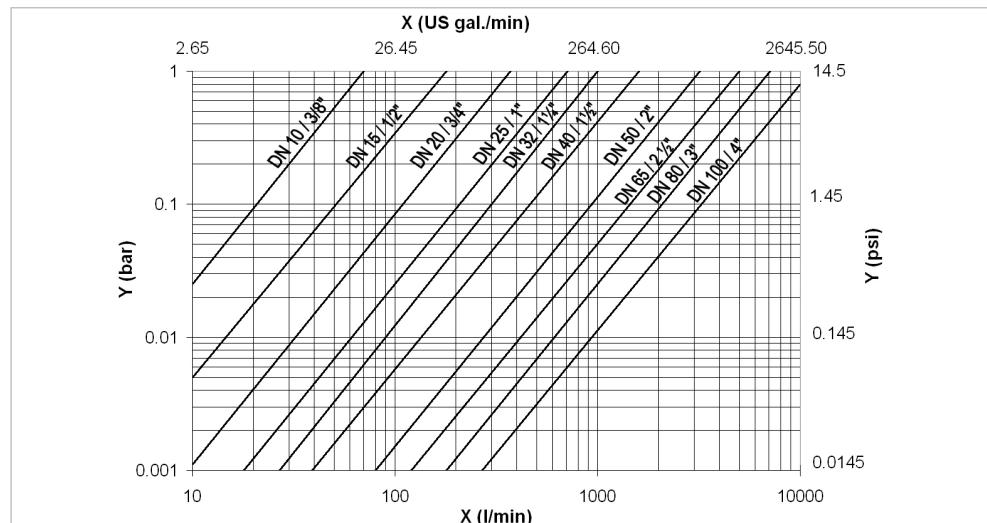
P Permissible pressure (bar, psi)



- 1) For the nominal diameters DN10-DN50 the central part of the ball valve is designed for the nominal pressure PN16
- 2) For nominal diameters DN10-DN50, the nominal pressure is reduced to PN10 depending on the connection
- 3) For the nominal diameters DN65-DN100 the central part of the ball valve is designed for nominal pressure PN10

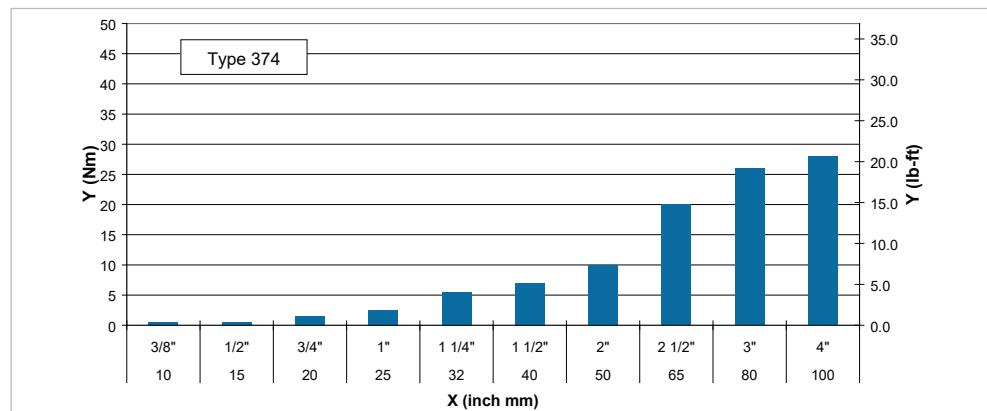
# Datasheet

## Pressure losses



X Flow rate  
(l/min, US gal/min)  
Y Pressure loss  $\Delta p$  (bar, psi)

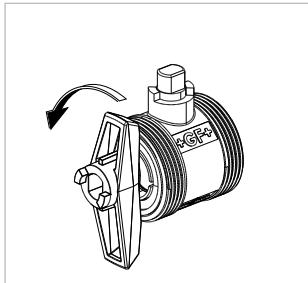
## Operating torque



X Nominal diameter DN (mm, inch)  
Y Tightening torque (Nm, lb-ft)

## Technical basics

- With the backing seals, the ball has a floating position. This results in preloading and hence a constant seal. Stem, backing, housing and connection seals are made of EPDM.
- The design of the hand lever serves as a tool for a micro adjustment of the ball support.



All ball valves in DN10 – 100 are available as radially removable valves with two threaded connections according to EN ISO 16135.

## Valve handling

### Installation notes

When installing the ball valve, ensure that it is always installed into the system in an opened ball position.

### Maintenance notes

Ball valves require no maintenance under normal operating conditions (clear water). However, the following measures must be considered:

- Regularly check that no medium escapes to the outside.
- We recommend a function test for ball Type valves that are kept permanently in the same position 1 – 2 times per year to check functionality.



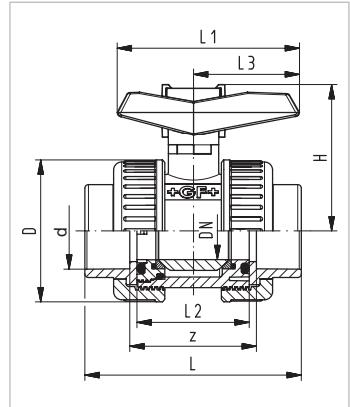
Installation and maintenance must be performed according to the corresponding installation instructions. The installation manual is included with the product, see also the online product catalogue at [www.gfps.com](http://www.gfps.com)

# Datasheet

## Dimensions

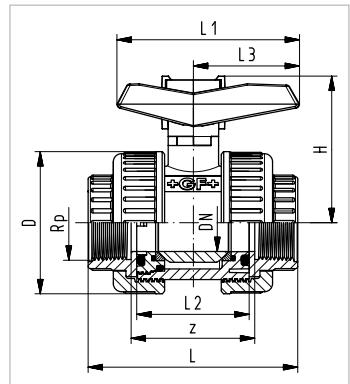
With solvent cement sockets, metric

d (mm)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
16	10	50	55	76	67	42	40	48
20	15	50	55	80	67	42	40	48
25	20	59	61	91	77	48	45	53
32	25	68	69	102	87	54	51	58
40	32	80	81	120	102	62	59	68
50	40	94	91	140	119	72	70	78
63	50	115	113	169	146	86	84	93
75	65	145	129	206	179	110	103	118
90	80	168	146	242	209	128	120	140
110	100	210	179	282	250	150	141	160



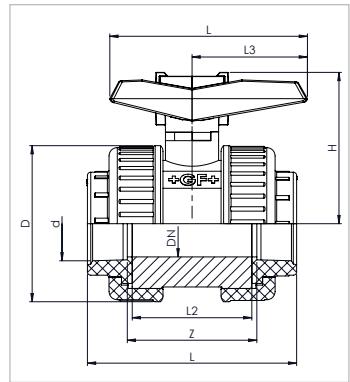
With threaded sockets, Rp

Rp (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
3/8	15	50	55	76	67	42	40	48
1/2	15	50	55	80	67	42	40	48
3/4	20	59	61	91	77	48	45	53
1	25	68	69	102	87	54	51	58
1 1/4	32	80	81	116	102	62	59	68
1 1/2	40	94	91	126	119	72	70	78
2	50	115	113	149	146	86	84	93
2 1/2	65	145	129	184	179	110	103	118
3	80	168	146	212	209	128	120	140
4	100	210	179	244	250	150	141	160



With threaded sockets, NPT

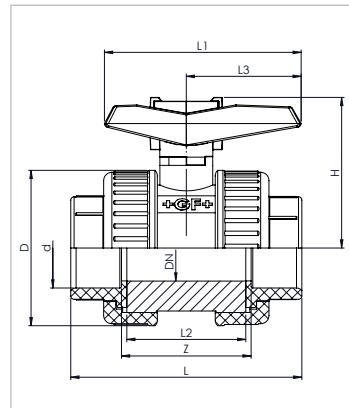
NPT (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
1/2	15	50	55	88	67	42	40	48
3/4	20	59	61	91	77	48	45	53
1	25	68	69	102	87	54	51	58
1 1/4	32	80	81	116	102	62	59	68
1 1/2	40	94	91	126	119	72	70	78
2	50	115	113	149	146	86	84	93
2 1/2	65	145	129	184	179	110	103	118
3	80	168	146	212	209	128	120	140
4	100	210	179	244	250	150	141	160



# Datasheet

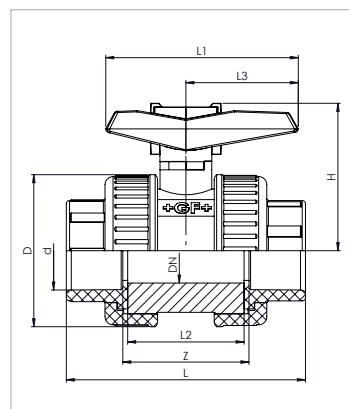
## With solvent cement sockets, BS

d (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
1/2	15	50	55	80	67	42	40	48
3/4	20	59	61	91	77	48	45	53
1	25	68	69	102	87	54	51	58
1 1/4	32	80	81	120	105	62	59	68
1 1/2	40	94	91	140	119	72	70	78
2	50	115	113	169	146	86	84	93
2 1/2	65	145	129	206	179	110	103	118
3	80	168	146	242	209	128	120	140
4	100	210	179	282	250	150	141	160



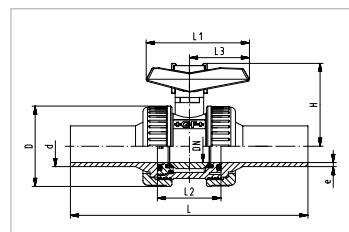
## With solvent cement sockets, ASTM

d (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
1/2	15	50	55	92	67	42	40	48
3/4	20	59	61	104	77	48	45	53
1	25	68	69	116	87	54	51	58
1 1/4	32	80	81	130	102	62	59	68
1 1/2	40	94	91	140	119	72	70	78
2	50	115	113	169	146	86	84	93
2 1/2	65	145	129	206	179	110	103	118
3	80	168	146	242	209	128	120	140
4	100	210	179	282	250	150	141	160



## With butt fusion spigot, long

d (mm)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	e (mm)
20	15	95	55	175	67	42	40	1.8
25	20	105	61	195	77	48	45	2.3
32	25	115	69	247	87	54	51	2.9
40	32	140	81	233	102	62	59	3.6
50	40	150	91	265	119	72	70	4.5
63	50	165	113	278	146	86	84	5.7
75	65	185	129	348	179	110	103	6.8
90	80	200	146	350	209	128	120	8.2
110	100	220	179	412	250	150	141	10



## Ball Valve Type 375



Ball Valve Type 375

### Product description

The Ball Valve Type 375 is an affordable manual ball valve that was developed specially for use in water applications or with non-critical chemicals. Its construction ensures simple maintenance and hence a long service life. Its compact construction makes possible simple installation into and removal from the piping system.

### Function

The ball valve uses a rotating ball with a hole through it that allows straight-through flow in the open position and shuts off flow when the ball is rotated 90° to block the flow passage. This valve is used primarily for open/close functions and also for throttling services.

### Applications

- Water treatment
- Non-critical chemicals

### Benefits/features

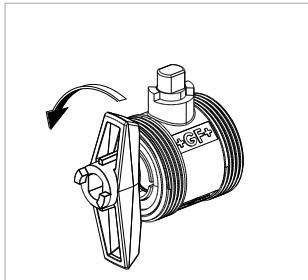
- Manual valve for water applications and non-critical media
- Ergonomic hand lever with integrated tool for removing/adjusting the union bushing
- Simple maintenance and long service life
- Simple installation and removal due to compact construction
- PTFE ball seat
- Double o-ring on the stem
- Very compact "Z" dimension
- Wide range from 16mm to 110mm and from ½" to 4"

### Flow media

Non-solid, neutral and non-aggressive media. The chemical resistance depends on the selected valve material ([see online tool ChemRes PLUS](#)).

## Technical basics

- With the backing seals, the ball has a floating position. This results in preloading and hence a constant seal. Stem, backing, housing and connection seals are made of EPDM or FKM.
- The design of the hand lever serves as a tool for a micro adjustment of the ball support.



All ball valves in DN10 – 100 are available as radially removable valves with two threaded connections according to EN ISO 16135.

## Valve handling

### Installation notes

When installing the ball valve, ensure that it is always installed into the system in an opened ball position.

### Maintenance notes

Ball valves require no maintenance under normal operating conditions (clear water). However, the following measures must be considered:

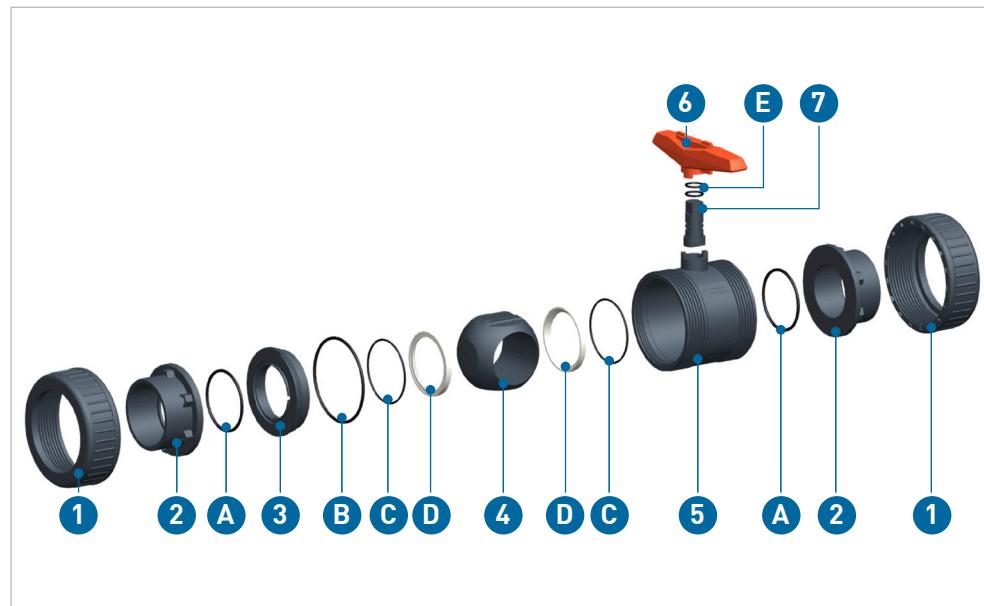
- Regularly check that no medium escapes to the outside.
- We recommend a function test for ball Type valves that are kept permanently in the same position 1 – 2 times per year to check functionality.



Installation and maintenance must be performed according to the corresponding installation instructions. The installation manual is included with the product, see also the online product catalogue at [www.gfps.com](http://www.gfps.com)

# Datasheet

## Technical data



- 1 Coupling nut
- 2 Connecting part
- 3 Union bush
- 4 Ball
- 5 Valve body
- 6 Hand lever
- 7 Stem
- A Face seal
- B Body seal
- C Backing seal
- D Ball seat
- E Stem seal

### Specification

Dimensions	d16/DN10 – d110/DN100, $\frac{3}{8}$ " – 4"	
Materials	Valve body	PVC-U, PVC-C
	Lever	PVC-U
Gasket materials	O-rings EPDM, FKM	
	Ball seat	PTFE
Pressure levels	DN10 – 50	PN16
	DN65 – 100	PN10
Actuation variants	Manually operated	
Connections	Solvent cement sockets	ISO, BS, ASTM/ANSI
	Threaded sockets	NPT, Rp
	Butt fusion spigots, long	PE100 SDR11 ISO
Approvals	ACS, NSF 61, WRAS	

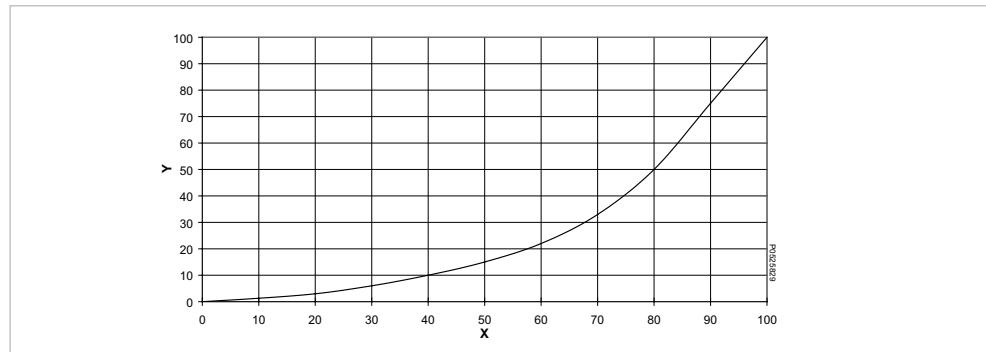
### Kv 100 values

DN (mm)	inch (inch)	d (mm)	Kv 100 (l/min)	Cv 100 (US Gal./min)	Kv 100 (m³/h)
10	$\frac{3}{8}$	16	70	4.9	4
15	$\frac{1}{2}$	20	185	12.9	11
20	$\frac{3}{4}$	25	350	24.5	21
25	1	32	700	49.0	42
32	$1\frac{1}{4}$	40	1'000	70.0	60
40	$1\frac{1}{2}$	50	1'600	112.0	96
50	2	63	3'100	217.1	186
65	$2\frac{1}{2}$	75	5'000	350.0	300
80	3	90	7'000	490.0	420
100	4	110	11'000	770.0	660

The kv values for each intermediate valve position can be determined by using the flow value characteristics and the kv 100 values.

# Datasheet

## Flow characteristics



X Opening angle (%)  
Y Kv, Cv value (%)

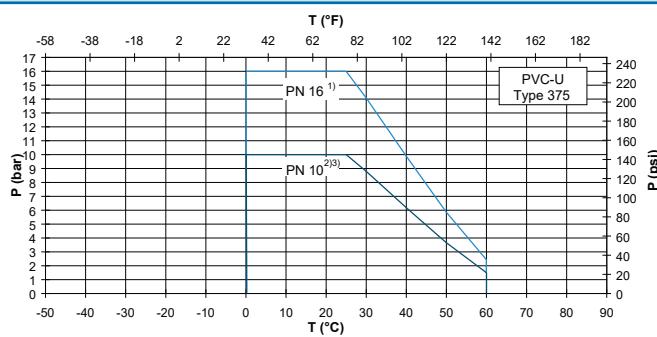
## Pressure-temperature diagrams

The following pressure-temperature diagrams are based on a service life of 25 years and water or similar media.

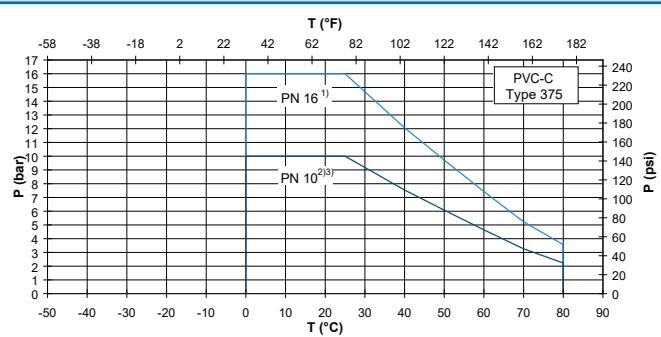
T Temperature ( $^{\circ}\text{C}$ ,  $^{\circ}\text{F}$ )

P Permissible pressure (bar, psi)

PVC-U



PVC-C

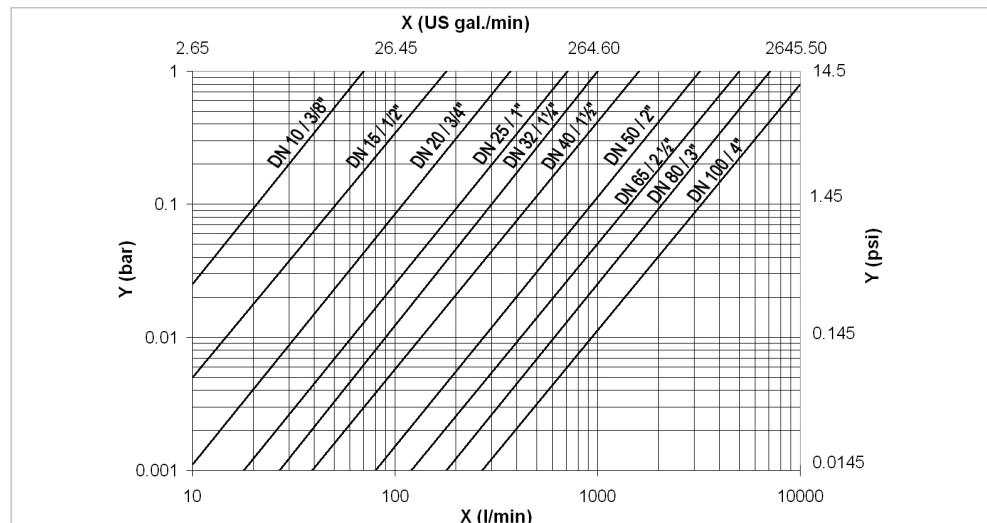


- <sup>1)</sup> For the nominal diameters DN10 - DN50 the central part of the ball valve is designed for the nominal pressure PN16  
<sup>2)</sup> For nominal diameters DN10 - DN50, the nominal pressure is reduced to PN10 depending on the connection

- <sup>3)</sup> For the nominal diameters DN65 - DN100 the central part of the ball valve is designed for nominal pressure PN10

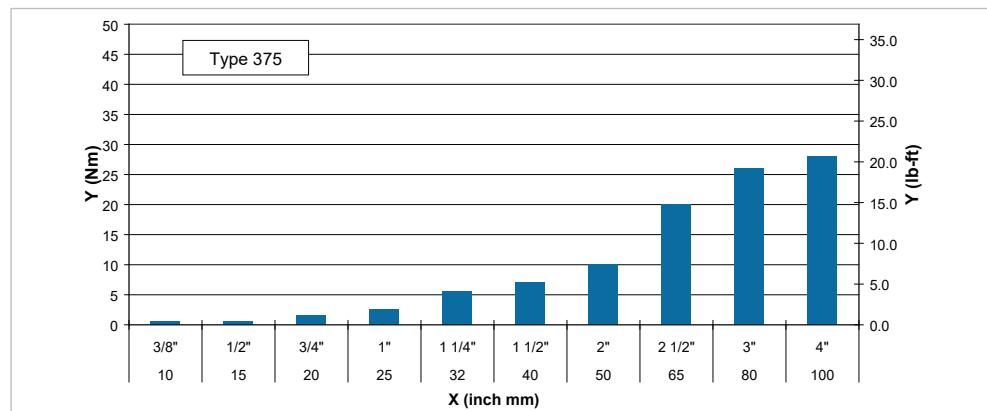
# Datasheet

## Pressure losses



X Flow rate  
(l/min, US gal/min)  
Y Pressure loss  $\Delta p$  (bar, psi)

## Operating torque



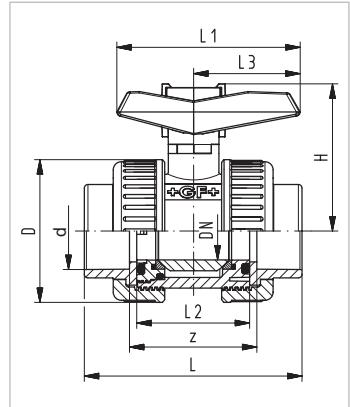
X Nominal diameter DN (mm,  
inch)  
Y Tightening torque (Nm,  
lb-ft)

# Datasheet

## Dimensions

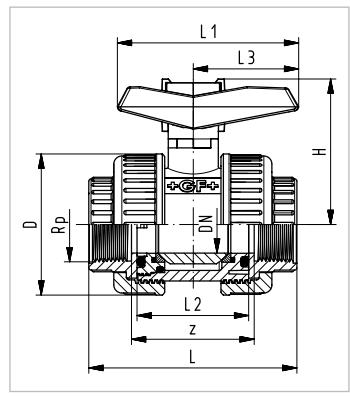
With solvent cement sockets, metric

d (mm)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
16	10	50	55	76	67	42	40	48
20	15	50	55	80	67	42	40	48
25	20	59	61	91	77	48	45	53
32	25	68	69	102	87	54	51	58
40	32	80	81	120	102	62	59	68
50	40	94	91	140	119	72	70	78
63	50	115	113	169	146	86	84	93
75	65	145	129	206	179	110	103	118
90	80	168	146	242	209	128	120	140
110	100	210	179	282	250	150	141	160



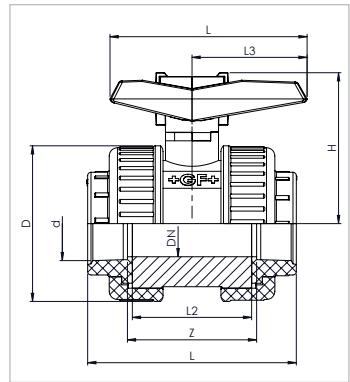
With threaded sockets, Rp

Rp (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
3/8	15	50	55	76	67	42	40	48
1/2	15	50	55	80	67	42	40	48
3/4	20	59	61	91	77	48	45	53
1	25	68	69	102	87	54	51	58
1 1/4	32	80	81	116	102	62	59	68
1 1/2	40	94	91	126	119	72	70	78
2	50	115	113	149	146	86	84	93
2 1/2	65	145	129	184	179	110	103	118
3	80	168	146	212	209	128	120	140
4	100	210	179	244	250	150	141	160



With threaded sockets, NPT

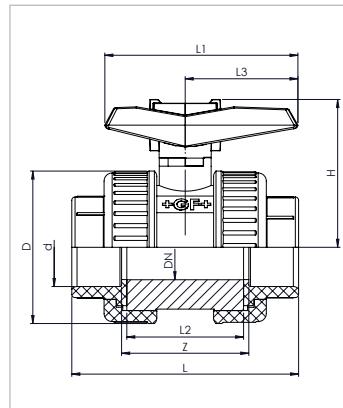
NPT (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
1/2	15	50	55	88	67	42	40	48
3/4	20	59	61	91	77	48	45	53
1	25	68	69	102	87	54	51	58
1 1/4	32	80	81	116	105	62	59	68
1 1/2	40	94	91	126	119	72	70	78
2	50	115	113	149	146	86	84	93
2 1/2	65	145	129	184	179	110	103	118
3	80	168	146	212	209	128	120	140
4	100	210	179	244	250	150	141	160



# Datasheet

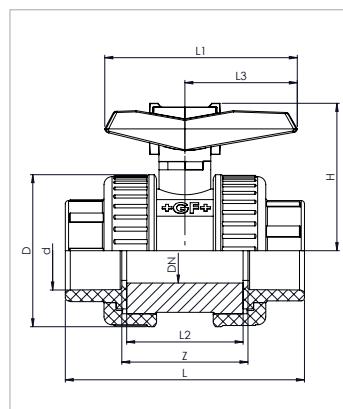
## With solvent cement sockets, BS

d (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
1/2	15	50	55	80	67	42	40	48
3/4	20	59	61	91	77	48	45	53
1	25	68	69	102	87	54	51	58
1 1/4	32	80	81	120	105	62	59	68
1 1/2	40	94	91	140	119	72	70	78
2	50	115	113	169	146	86	84	93
2 1/2	65	145	129	206	179	110	103	118
3	80	168	146	242	209	128	120	140
4	100	210	179	282	250	150	141	160



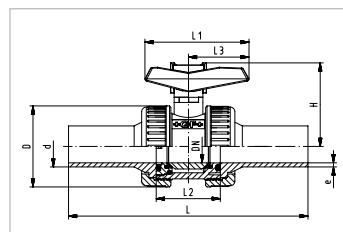
## With solvent cement sockets, ASTM

d (inch)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	z (mm)
1/2	15	50	55	92	67	42	40	48
3/4	20	59	61	104	77	48	45	53
1	25	68	69	116	87	54	51	58
1 1/4	32	80	81	130	102	62	59	68
1 1/2	40	94	91	140	119	72	70	78
2	50	115	113	169	146	86	84	93
2 1/2	65	145	129	206	179	110	103	118
3	80	168	146	242	209	128	120	140
4	100	210	179	282	250	150	141	160



## With butt fusion spigot, long

d (mm)	DN (mm)	D (mm)	H (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	e (mm)
20	15	95	55	175	67	42	40	1.8
25	20	105	61	195	77	48	45	2.3
32	25	115	69	247	87	54	51	2.9
40	32	140	81	233	102	62	59	3.6
50	40	150	91	265	119	72	70	4.5
63	50	165	113	278	146	86	84	5.7
75	65	185	129	348	179	110	103	6.8
90	80	200	146	350	209	128	120	8.2
110	100	220	179	412	250	150	141	10



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