

**Metal seal**  
**Ball valve**  
**Flange**  
**PN16-40**  
**DN15-300**

### Range of application:

In industrial facilities, oil and chemical industry and related manufacturing industries

### Temperature range:

related to the pressure : -29°C to +300°C (carbon steel)  
 -50°C to +300°C (stainless steel)

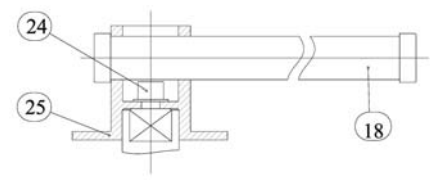
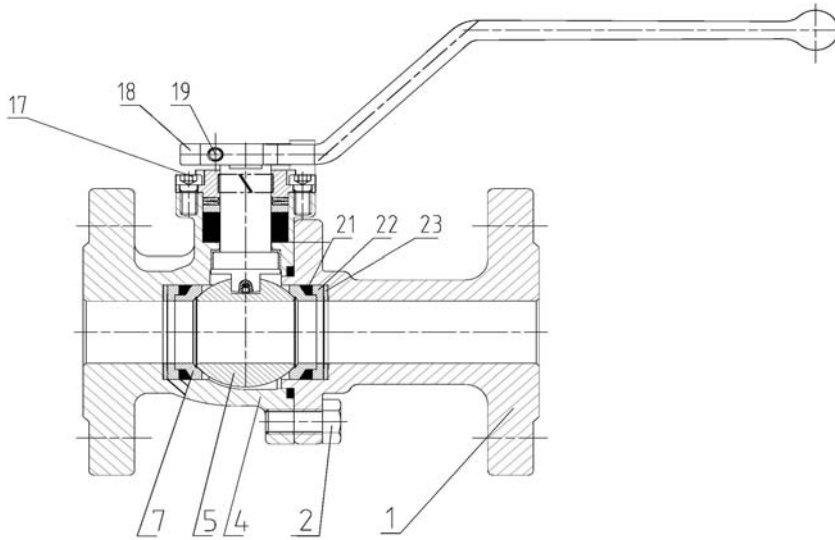
### Material [ cording DIN EN (DIN) ]

Body: —1.0619N  
 —1.4408  
 Ball: —1.4301+STL  
 —1.4401+STL  
 Body Seal: — Graphite  
 Seat: —1.4301+STL  
 —1.4401+STL

### Perform standard:

Design: split body with full bore round port.  
 acc. AD 2000 A4/ ATEX 2014/34/EU /DIN 3357 .  
 Flange connection : Flange dimension:DIN EN 1092-1.  
 Operating: with a two flat stem acc to the NAMUR  
 -recommends.  
 90° -rotary switch  
 Actuator mounting: mounting flange acc. to DIN ISO5211  
 for gear box , air- , electric-or hydraulic pattern actuator .  
 Fire test : API 607 & BS 6755 .  
 Antistatic device acc.: BS 5351 .  
 Preloaded belleville spring design for stem sealing system,  
 offers the possibility of manual adjustment of the sealing.

FIG.	Pressure	Material	RANGE
133.753	PN16	1.0619N	DN15-DN200
135.753	PN40	1.0619N	DN15-DN200
153.753	PN16	1.4408	DN15-DN200
155.753	PN40	1.4408	DN15-DN200



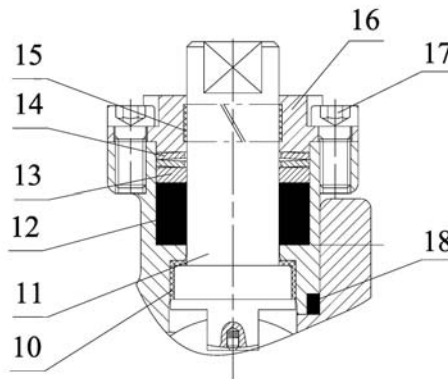
DN125-200

Ball valve with full bore and Flange .

**Material list**

NO.	Part	Material	
		FIG. 153.753 / 155.753	FIG. 133.753 / 135.753
1	Adapter	1.4408	1.0619N
2	Bolts	A4-70	40CrMo
4	Body	1.4408	1.0619N
5	Ball	1.4401 +STL	1.4301+STL
7	Seat	1.4401+STL	1.4301+STL
17	Bolt	A2-70	A2-70
18	Lever	1.4308(DN≤100)/ C45 Galvanization(DN>100)	GGG40(DN≤100) / C45 (DN>100)
19	Bolts	A2-70	35
21	Sealing ring	Graphite	Graphite
22	Seat retainer	1.4401	1.4301
23	Spring washer	17-7PH	17-7PH
24	Bolt	A2	35
25	Switch	1.4308	1.0619N

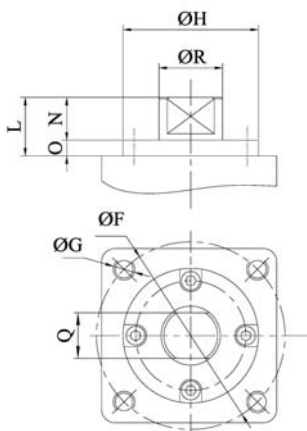
Stopfbuchs-Varianten



Material list

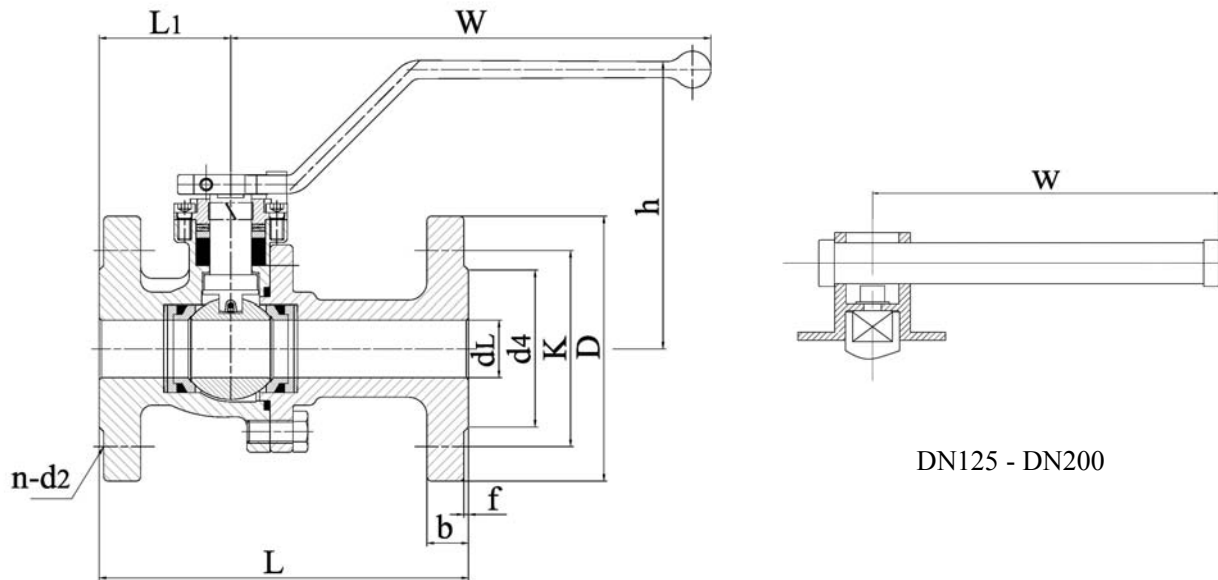
NO.	Part	Material	
		FIG. 153.753 / 155.753	FIG. 133.753 / 135.753
10	Thrust bearing	PPL	PPL
11	Stem	17-4PH / 1.4462/1.4571/1.4401	17-4PH / 1.4462/1.4571/1.4401
12	Packing	Graphite	Graphite
13	Gasket	1.4401	1.4401
14	Belleville spring	17-7PH	17-7PH
15	Sleeve	PPL	PPL
16	Cover	1.4408	1.0619N
17	Bolt	A2-70	A2-70
18	Body seal	Graphite	Graphite

Dimension List



DN	15	20	25	32	40	50	65	80	100	125	150	200
ΦF	50	50	50	50	70	70	70	102	102	125	125	125
ΦG	M6	M6	M6	M6	M8	M8	M8	M10	M10	M12	M12	M12
ΦH	35	35	35	35	55	55	55	70	70	85	85	85
L	19.5	25.6	34.5	34.5	38	38	44	50	50	37	37	37
O	10.7	12.8	20.7	20.7	23.8	23.8	30.3	32.8	32.8	23	23	23
N	8.8	12.8	13.8	13.8	14.2	14.2	13.7	17.2	17.2	14	14	14
Q	11	11	14	14	17	17	17	19	19	27	27	27
ΦR	14	14	18	18	22	22	22	26	30	40	40	40
S	2	2	2	2	3	3	3	3	3	-	-	-
ISO5211	F05	F05	F05	F05	F07	F07	F07	F10	F10	F12	F12	F12

FIG.	Pressure	Material	RANGE
133.753	PN16	1.0619N	DN15-DN200
135.753	PN40	1.0619N	DN15-DN200
153.753	PN16	1.4408	DN15-DN200
155.753	PN40	1.4408	DN15-DN200

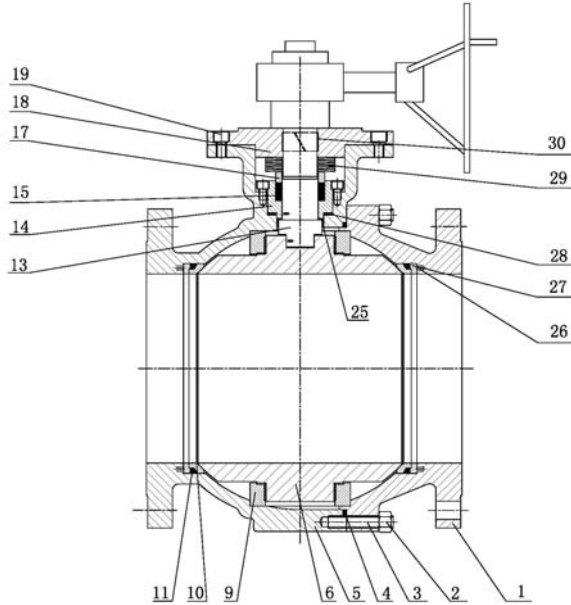


Ball valve with full bore and Flange . Flange end: DIN EN 1092-1 Form B ; Face to face: EN558-1 , G27 / G28 .

**Dimension List**

PN	DN	dL	l	L1	h	W	D	b	K	n-d2	d4×f	Weight
16(40)	15	Φ15	115/130	45.5	115	200	Φ95	16	Φ65	4-Φ14	Φ45×2	3.5
	20	Φ20	120/150	50.5	121	200	Φ105	18	Φ75	4-Φ14	Φ58×2	4.4
	25	Φ25	125/160	57	127	220	Φ115	18	Φ85	4-Φ14	Φ68×2	5.3
	32	Φ31	130/180	58	142	220	Φ140	18	Φ100	4-Φ18	Φ78×2	7.2
	40	Φ40	140/200	63.5	151	270	Φ150	18	Φ110	4-Φ18	Φ88×3	9.3
	50	Φ50	150/230	67	157	270	Φ165	20	Φ125	4-Φ18	Φ102×3	13
16	65	Φ65	170/290	71	191	360	Φ185	18	Φ145	4-Φ18	Φ122×3	16.5
	80	Φ77	180/310	83	201	360	Φ200	20	Φ160	8-Φ18	Φ138×3	22.5
	100	Φ100	190/350	87	218	360	Φ220	20	Φ180	8-Φ18	Φ158×3	30.5
	125	Φ125	325	122	241.5	500	Φ250	22	Φ210	8-Φ18	Φ188×3	55
	150	Φ150	350	124	256	650	Φ285	22	Φ240	8-Φ22	Φ212×3	82
	200	Φ200	400	168	315	760	Φ340	24	Φ295	12-Φ2	Φ268×3	190
40	65	Φ65	170/290	71	191	360	Φ185	22	Φ145	8-Φ18	Φ122×3	18.7
	80	Φ77	180/310	83	201	360	Φ200	24	Φ160	8-Φ18	Φ138×3	23.6
	100	Φ100	190/350	87	218	360	Φ235	24	Φ190	8-Φ22	Φ162×3	34
	125	Φ125	325	122	241.5	500	Φ270	26	Φ220	8-Φ26	Φ188×3	60.5
	150	Φ150	350	124	256	650	Φ300	28	Φ250	8-Φ26	Φ218×3	89
	200	Φ200	400	168	315	760	Φ375	34	Φ320	12-Φ3	Φ285×3	201

FIG.	Pressure	Material	RANGE
133.753	PN16	1.0619N	DN150-DN300
135.753	PN40	1.0619N	DN150-DN300
153.753	PN16	1.4408	DN150-DN300
155.755	PN40	1.4408	DN150-DN300

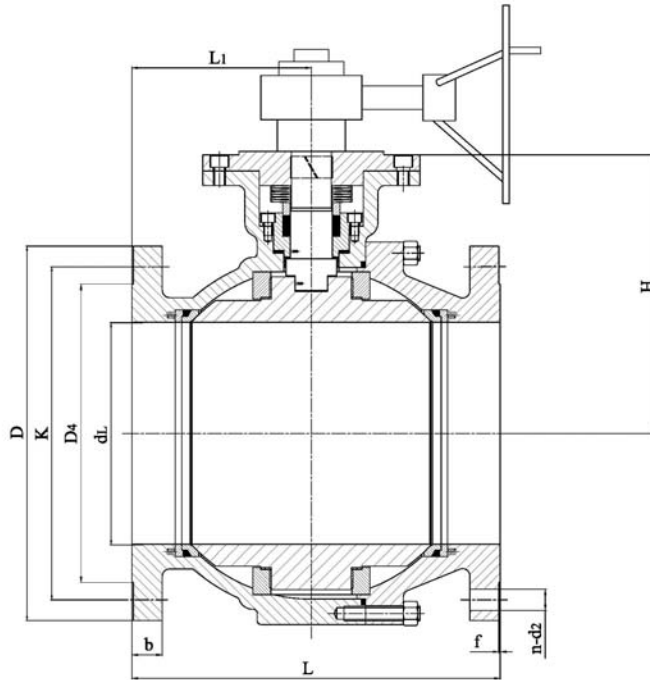


Ball valve with full bore and Flange .

## Material list

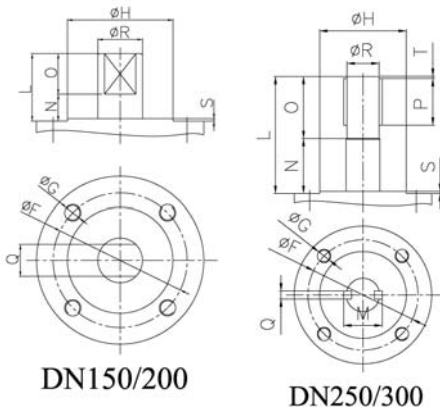
NO.	Part	Material	
		FIG. 153.753 / 155.753	FIG. 133.753 / 135.753
1	Adapter	1.4408	1.0619N
2	Nuts	A4-70	42CrMo
3	Bolts	A4-70	42CrMo
4	Body seal	Graphite	Graphite
5	Body	1.4408	1.0619N
6	Ball	1.4408	C22.8+ENP
9	Bracket	1.4418	C22.8
10	Seat	1.4401+STL	1.4301+STL
11	Sealing ring	Graphite	Graphite
13	Stem	17-4PH /1.4462/1.4571/ 1.4401	17-4PH /1.4462/1.4571/ 1.4401
14	Packing box	1.4408	C22.8+ENP
15	Packing	Graphite	Graphite
17	Metal-ring	1.4401	1.4301
18	Cover	1.4408	C22.8
19	Bolts	A4-70	A2-70
25	Thrust bearing	PPL	PPL
26	Spring	MONEL 400	MONEL 400
27	Seat retainer	1.4401	1.4301
28	Gasket	Graphite	Graphite
29	Belleville spring	17-7PH	17-7PH
30	Thrust bearing	PPL	PPL

FIG.	Pressure	Material	RANGE
133.753	PN16	1.0619N	DN150-DN300
135.753	PN40	1.0619N	DN150-DN300
153.753	PN16	1.4408	DN150-DN300
155.753	PN40	1.4408	DN150-DN300



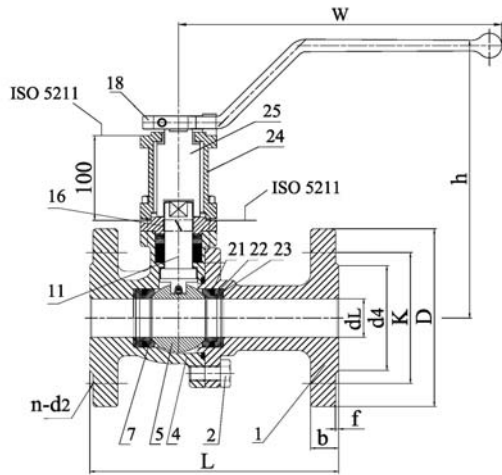
**Dimension List**

PN	DN	dL	L	L1	H	D	b	k	n-d2	D4×f	Weight
16	150	150	350	124	256	285	22	240	8-Φ22	Φ212×3	
	200	200	400	200	315	340	24	295	12-Φ22	Φ268×3	
	250	250	450	225	316	405	26	355	12-Φ26	Φ320×2	
	300	300	500	240	383	460	28	410	12-Φ26	Φ378×2	
40	150	150	350	124	256	300	28	250	8-Φ26	Φ218×3	
	200	200	400	200	315	375	34	320	12-Φ30	Φ285×3	
	250	250	450	225	316	450	38	385	12-Φ33	Φ345×2	
	300	300	500	240	383	515	42	450	16-Φ33	Φ410×2	



**Dimension List**

DN	ΦF	ΦG	ΦH	L	O	N	Q	ΦR	S	M	P	T
150	140	M16	100	61	39.8	21.2	20	36	3	-	-	-
200	125	M12	85	61	39.8	21.2	27	50	3	-	-	-
250	165	M20	130	172	90	82	12	50	3	58	70	3
300	254	M16	200	172	90	82	14	55	5	69	70	3



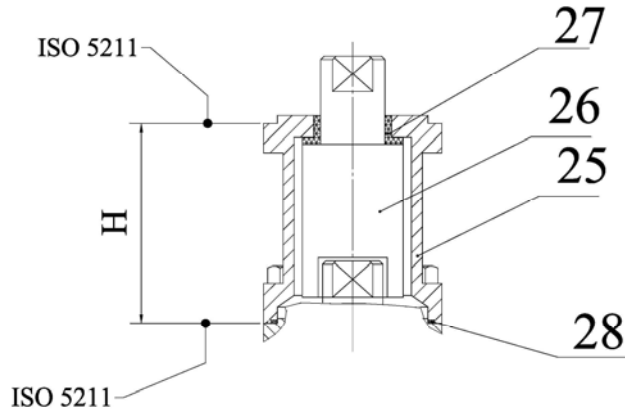
Long stem ball valve with full bore and Flange .  
 Flange end: DIN EN 1092-1 Form B ;  
 Face to face: EN558-1 .

**Material List**

NO.	Part	Material	
		FIG. 153.753 / 155.753	FIG. 133.753 / 135.753
1	Adapter	1.4408	1.0619N
2	Bolts	A4-70	42CrMo
4	Body	1.4408	1.0619N
5	Ball	1.4401 +STL	1.4301+STL
7	Seat	1.4401+STL	1.4301+STL
8	Spring washer	17-7PH	17-7PH
11	Stem	17-4PH /1.4462/1.4571/ 1.4401	17-4PH /1.4462/1.4571/ 1.4401
16	Gland	1.4408	1.0619N
18	Lever	1.4308(DN≤100) / C45 Galvanization (DN>100)	GGG40(DN≤100) / C45 (DN>100)
21	Sealing ring	Graphite	Graphite
22	Seat retainer	1.4401	1.4301
23	Spring washer	17-7PH	17-7PH
24	Case	1.4408	1.0619N
25	Long stem	1.4462	1.4462

**Dimension List**

PN	DN	dL	l	l1	H	W	D	b	K	n-d2	d4×f	Weight
16(40)	15	Φ15	115/130	45.5	215	200	Φ95	16	Φ65	4-Φ14	Φ45×2	3.5
	20	Φ20	120/150	50.5	221	200	Φ105	18	Φ75	4-Φ14	Φ58×2	4.4
	25	Φ25	125/160	57	227	220	Φ115	18	Φ85	4-Φ14	Φ68×2	5.3
	32	Φ31	130/180	58	242	220	Φ140	18	Φ100	4-Φ18	Φ78×2	7.2
	40	Φ40	140/200	63.5	251	270	Φ150	18	Φ110	4-Φ18	Φ88×3	9.3
	50	Φ50	150/230	67	257	270	Φ165	20	Φ125	4-Φ18	Φ102×3	13
16	65	Φ65	170/290	71	291	360	Φ185	18	Φ145	4-Φ18	Φ122×3	16.5
	80	Φ77	180/310	83	301	360	Φ200	20	Φ160	8-Φ18	Φ138×3	22.5
	100	Φ100	190/350	87	318	360	Φ220	20	Φ180	8-Φ18	Φ158×3	30.5
	125	Φ125	325	122	341.5	500	Φ250	22	Φ210	8-Φ18	Φ188×3	55
	150	Φ150	350	124	356	650	Φ285	22	Φ240	8-Φ22	Φ212×3	82
	200	Φ200	400	168	415	760	Φ340	24	Φ295	12-Φ22	Φ268×3	190
40	65	Φ65	170/290	71	291	360	Φ185	22	Φ145	8-Φ18	Φ122×3	18.7
	80	Φ77	180/310	83	301	360	Φ200	24	Φ160	8-Φ18	Φ138×3	23.6
	100	Φ100	190/350	87	318	360	Φ235	24	Φ190	8-Φ22	Φ162×3	34
	125	Φ125	325	122	341.5	500	Φ270	26	Φ220	8-Φ26	Φ188×3	60.5
	150	Φ150	350	124	356	650	Φ300	28	Φ250	8-Φ26	Φ218×3	89
	200	Φ200	400	168	415	760	Φ375	34	Φ320	12-Φ30	Φ285×3	201



Long stem V - seal ( PTFE) + Graphite

### Material list

NO.	Part	Material	
25	Case	1.4408	1.0619N
26	Long stem	1.4462	1.4462
27	Thrust bearing	PTFE+25%glass	PTFE+25%glass
28	Gasket	PPL	PPL

### Dimension List

PN	DN	H	ISO5211
16(40)	15	100	F05
	20	100	F05
	25	100	F05
	32	100	F05
	40	100	F07
	50	100	F07
16	65	100	F07
	80	100	F10
	100	100	F10
	125	100	F12
	150	100	F12
	200	100	F12
40	65	100	F07
	80	100	F10
	100	100	F10
	125	100	F12
	150	100	F12
	200	100	F12



## Connecting format

Flanged		
Pressure rating	Flange dimension	Sealing form
PN16 PN40	DIN EN 1092-1	DIN EN 1092-1 Form B 1 <sup>1</sup> Ra max : 12.5 μm Rz max : 50 μm

### Installation instructions

Installation site is not prescribed.  
Regardless of the flow direction.

Details please consult.

## Technical parameters

### Flow characteristics - Kv ( m<sup>3</sup>/h )

DN	15	20	25	32	40	50	65	80	100	150	200
Kv	12	23	60	72	175	360	620	930	1900	3500	---

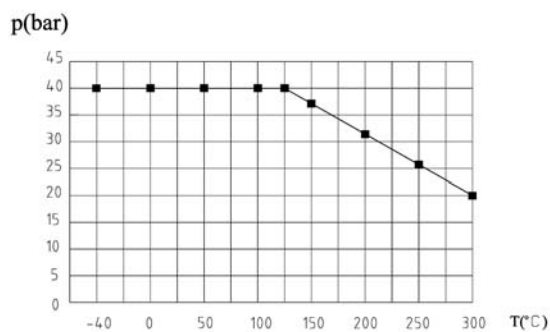
### Open torque - Nm

ΔP (bar)	DN										
	15	20	25	32	40	50	65	80	100	150	200
16	12	30	52	55	62	95	120	160	360	---	---

### Maximum

DN	15	20	25	32	40	50	65	80	100	150	200
M <sub>d max</sub>	50	50	336	336	600	600	600	1000	1000	3500	4000

### Allowable pressure in dependence of the temperature



Details please consult.