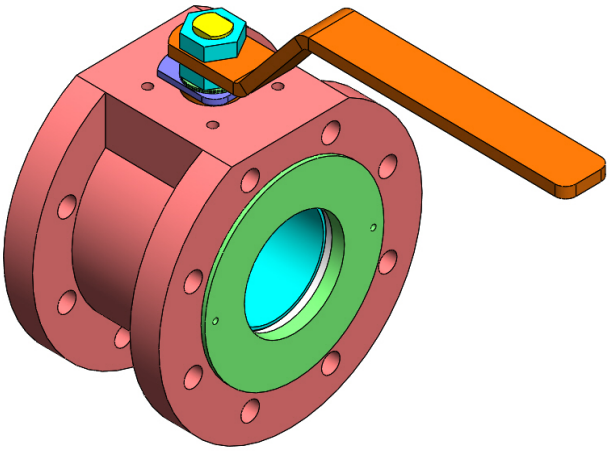
YAKACIK® VALF

Monoblock Ball Valve
MB1, MB2, MB3
DN15 - DN100
Full Bore, Flanged



Shell Thickness : Acc.to EN 12516-1
Flange Connection : PN16 Acc.to EN 1092-2
PN25 - PN40 Acc.to EN 1092-1
Flange Type : RF (Raised Face)
Leakage Tightness : Rate A Acc.to 12266-1
Actuator Connection : Acc.to ISO 5211 with mounting kit (bracket and coupling stem)

- For water, oil, steam, pressurized air, miscellaneous gases …
- Econonomic solution due to compact design and small size
- Convenient for applications in which there is severe space limitation
- Mounting kit protects the actuator from overheating

Ordering Examples

MB2.CS.PN16.DN80.LV
MB2 : Monoblock ball valve type
CS : Carbon steel
PN16 : Flange connection pressure class
DN80 : Valve size
LV : Operation by hand lever

MB1.SS316.PN40.DN50.F07-14
MB1 : Monoblock ball valve type
SS316 : Stainless steel (316)
PN40 : Flange connection pressure class
DN50 : Valve size
F07 : Flange type for actuator assembly according to ISO 5211
14 : Square head size [mm] for actuator

Comparison of MB1, MB2 and MB3

Open/close life span : MB1 > MB2 > MB3
Maximum temperature endurance : MB3 > MB2 > MB1
Operating torque : MB3 > MB2 ~ MB1
Suitability for miscellaneous gases : MB1 > MB2 > MB3
Suitability for low temperature applications : MB2 > MB3 > MB1

MB1 has longer life (number of open/close operations) but maximum temperature limit is lower. MB3 has higher maximum temperature limit but more difficult to operate (operating torque is higher) and has shorter life span.

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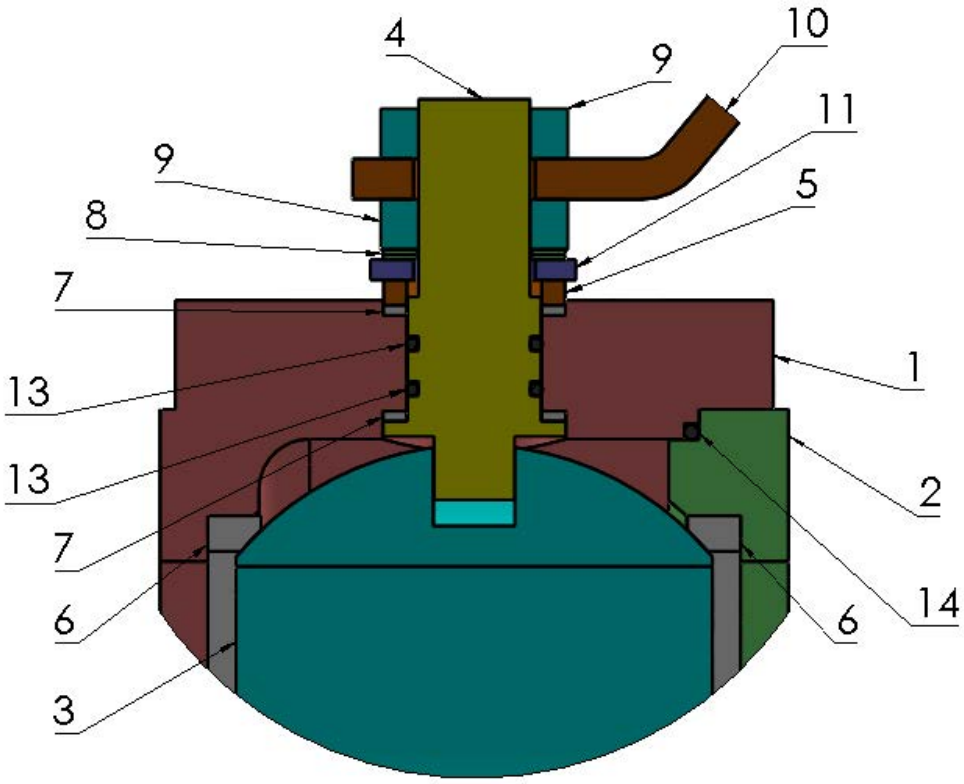
Monoblock Ball Valve - MB1

Maximum Temperature : +150°C



Parts List

		DN15 - DN32			DN40 - DN100		
No	Part Name	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Carbon Steel	Stainless Steel 304	Stainless Steel 316
1	Body	AISI 1040	1.4301	1.4401	1.0619	1.4308	1.4408
2	Bonnet	AISI 1040	1.4301	1.4401	1.0619	1.4308	1.4408
3	Ball	1.4021	1.4301	1.4401	1.4016	1.4308	1.4408
4	Stem	1.4021	1.4301	1.4401	1.4021	1.4301	1.4401
5	Thrust Ring	1.4021	1.4021	1.4021	1.4021	1.4021	1.4021
6	Sealing Ring	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
7	Sealing Washer	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
8	Belleville Washer	50CrV4	1.4310	1.4310	50CrV4	1.4310	1.4310
9	Nut	8.8	A2-70	A2-70	8.8	A2-70	A2-70
10	Hand Lever	St 42	1.4301	1.4301	St 42	1.4301	1.4301
11	Stop Washer	St 42	1.4301	1.4301	St 42	1.4301	1.4301
12	Stop Pin	AISI 1030	1.4301	1.4301	AISI 1030	1.4301	1.4301
13	Stem O-Ring	Viton	Viton	Viton	Viton	Viton	Viton
14	Bonnet O-Ring	Viton	Viton	Viton	Viton	Viton	Viton

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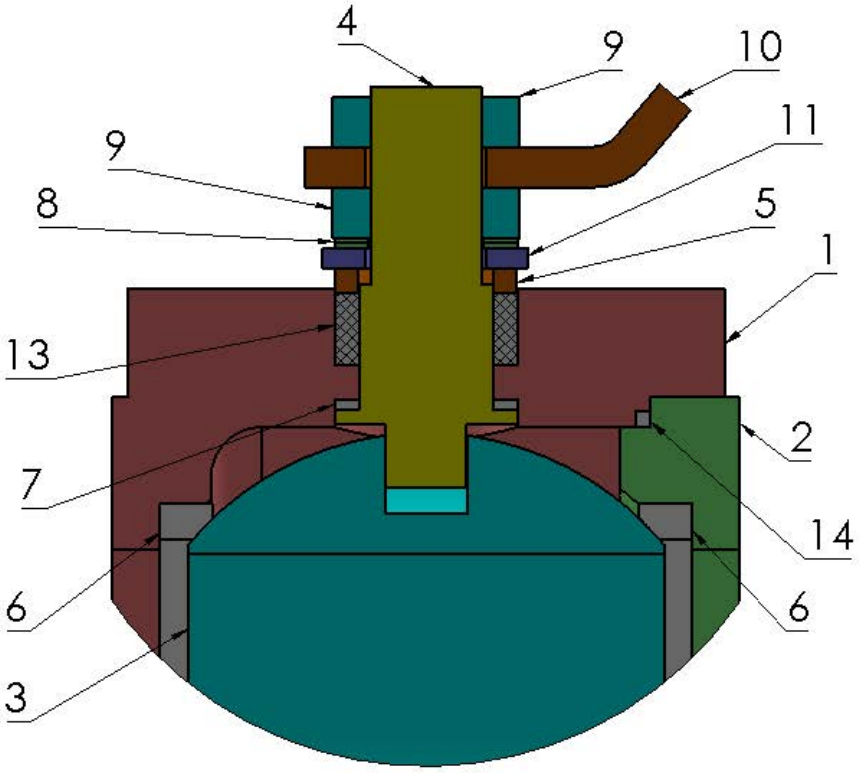
Monoblock Ball Valve - MB2

Maximum Temperature : +180°C



Parts List

		DN15 - DN32			DN40 - DN100		
No	Part Name	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Carbon Steel	Stainless Steel 304	Stainless Steel 316
1	Body	AISI 1040	1.4301	1.4401	1.0619	1.4308	1.4408
2	Bonnet	AISI 1040	1.4301	1.4401	1.0619	1.4308	1.4408
3	Ball	1.4021	1.4301	1.4401	1.4016	1.4308	1.4408
4	Stem	1.4021	1.4301	1.4401	1.4021	1.4301	1.4401
5	Thrust Ring	1.4021	1.4021	1.4021	1.4021	1.4021	1.4021
6	Sealing Ring	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
7	Sealing Washer	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
8	Belleville Washer	50CrV4	1.4310	1.4310	50CrV4	1.4310	1.4310
9	Nut	8.8	A2-70	A2-70	8.8	A2-70	A2-70
10	Hand Lever	St 42	1.4301	1.4301	St 42	1.4301	1.4301
11	Stop Washer	St 42	1.4301	1.4301	St 42	1.4301	1.4301
12	Stop Pin	AISI 1030	1.4301	1.4301	AISI 1030	1.4301	1.4301
13	Stem Packing	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
14	Bonnet Gasket	PTFE	PTFE	PTFE	PTFE	PTFE	PTFE

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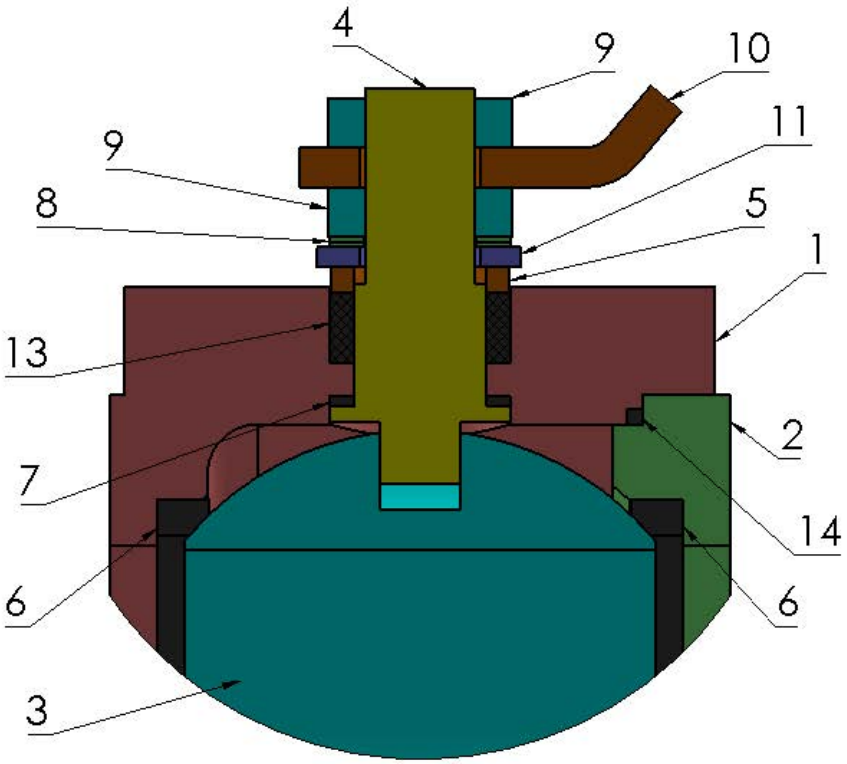
Monoblock Ball Valve - MB3

Maximum Temperature : +200°C



Parts List

		DN15 - DN32			DN40 - DN100		
No	Part Name	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Carbon Steel	Stainless Steel 304	Stainless Steel 316
1	Body	AISI 1040	1.4301	1.4401	1.0619	1.4308	1.4408
2	Bonnet	AISI 1040	1.4301	1.4401	1.0619	1.4308	1.4408
3	Ball	1.4021	1.4301	1.4401	1.4016	1.4308	1.4408
4	Stem	1.4021	1.4301	1.4401	1.4021	1.4301	1.4401
5	Thrust Ring	1.4021	1.4021	1.4021	1.4021	1.4021	1.4021
6	Sealing Ring	YFC	YFC	YFC	YFC	YFC	YFC
7	Sealing Washer	YFC	YFC	YFC	YFC	YFC	YFC
8	Belleville Washer	50CrV4	1.4310	1.4310	50CrV4	1.4310	1.4310
9	Nut	8.8	A2-70	A2-70	8.8	A2-70	A2-70
10	Hand Lever	St 42	1.4301	1.4301	St 42	1.4301	1.4301
11	Stop Washer	St 42	1.4301	1.4301	St 42	1.4301	1.4301
12	Stop Pin	AISI 1030	1.4301	1.4301	AISI 1030	1.4301	1.4301
13	Stem Packing	YFC	YFC	YFC	YFC	YFC	YFC
14	Bonnet Gasket	YFC	YFC	YFC	YFC	YFC	YFC

YFC : Graphite Reinforced PTFE

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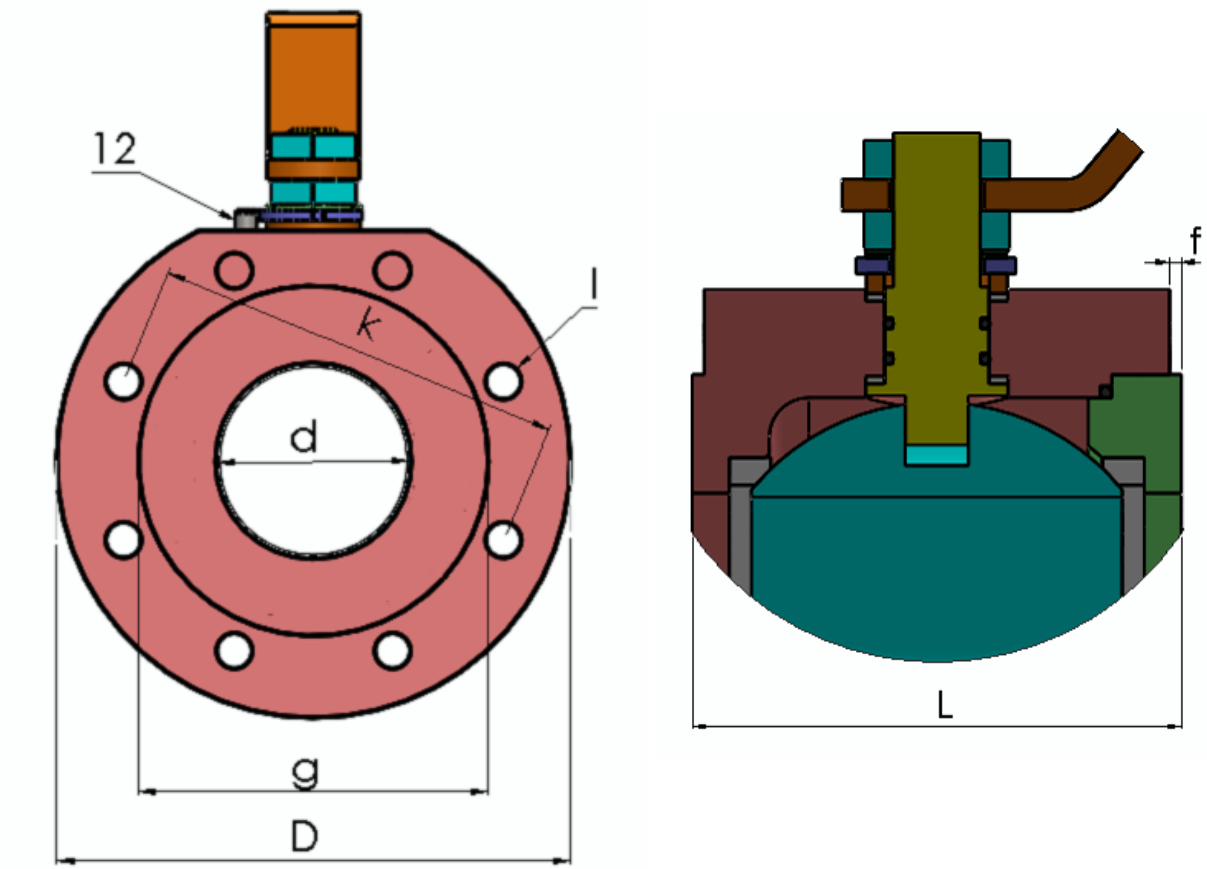
Monoblock Ball Valve - MB1, MB2, MB3



Connection Dimensions [mm]

Types: MB1, MB2, MB3

N : Number of Stud Holes

Pressure Class : PN16

Size	L	D	d	g	f	k	N	l
DN15	38	95	12.5	46	2	65	4	M12
DN20	42	105	17	56	2	75	4	M12
DN25	46	115	24	65	3	85	4	M12
DN32	60	140	30	76	3	100	4	M16
DN40	68	150	37	84	3	110	4	M16
DN50	84	165	47	99	3	125	4	M16
DN65	106	185	62	118	3	145	4	M16
DN80	124	200	74	132	3	160	8	M16
DN100	150	220	92	156	3	180	8	M16

Pressure Class : PN25 - PN40

L	D	d	g	f	k	N	l
38	95	12.5	45	2	65	4	M12
42	105	17	58	2	75	4	M12
46	115	24	68	2	85	4	M12
60	140	30	78	2	100	4	M16
68	150	37	88	3	110	4	M16
84	165	47	102	3	125	4	M16
106	185	62	122	3	145	8	M16
124	200	74	138	3	160	8	M16
153	235	98	162	3	190	8	M20

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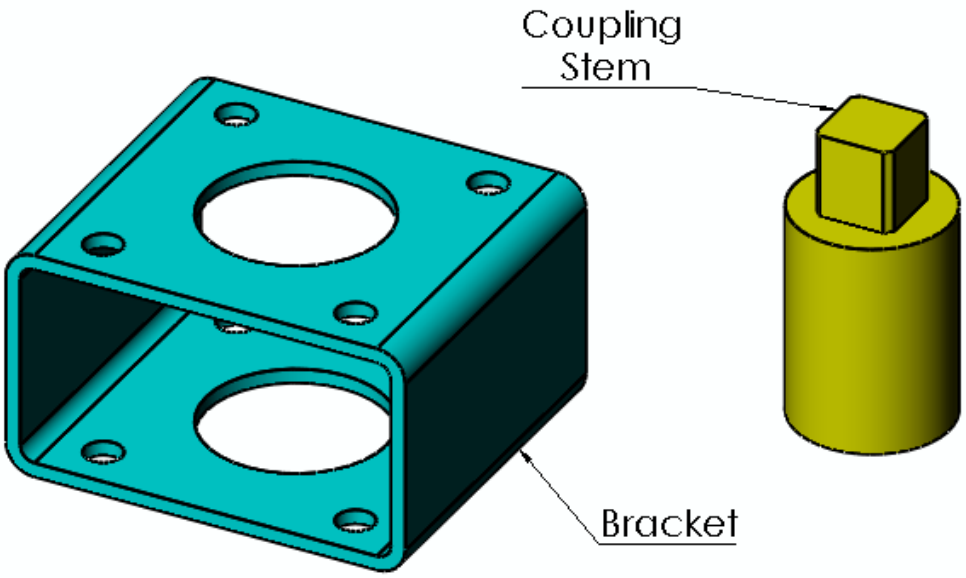
Monoblock Ball Valve - MB1, MB2, MB3

Actuator Mounting Kit



Recommended Torque Values for Actuator Selection [Nm]

Size	Flange Type	[mm] Square Head	MB1, MB2 PN16 Torque	MB1, MB2 PN25 Torque	MB1, MB2 PN40 Torque	MB3 PN16 Torque	MB3 PN25 Torque	MB3 PN40 Torque
DN15	F04	9	12	13	14	15	16	18
DN20	F04	9, 11	25	28	31	31	35	39
DN25	F04	9, 11	29	35	42	36	44	53
DN32	F05	11, 14	40	49	59	50	61	73
DN40	F05	11, 14	50	60	72	62	75	90
DN50	F07	14, 17	78	93	112	97	116	140
DN65	F07	14, 17	102	122	147	127	152	184
DN80	F10	17, 19	172	210	280	215	262	350
DN100	F10	17, 19, 22	280	340	400	350	425	500

Depending on fluid type (viscosity, coefficient of friction, ...) and the number of open/closes per year the recommended torque values may be multiplied by a safety factor.

For the ball valves which are not operated for long periods of time, it becomes necessary to exert bigger torque values to start the open/close movement.

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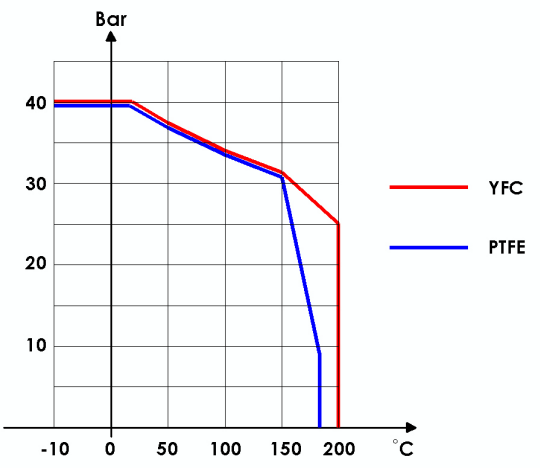
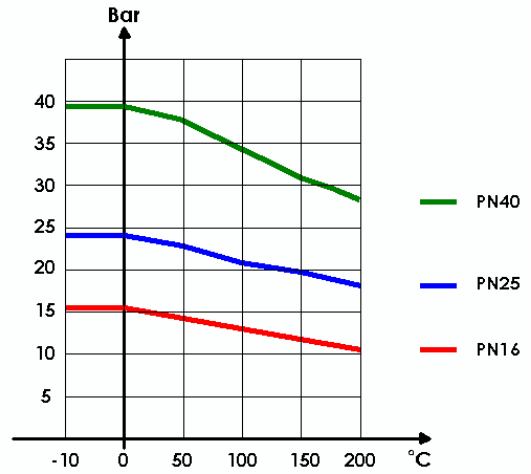
Monoblock Ball Valve - MB1, MB2, MB3

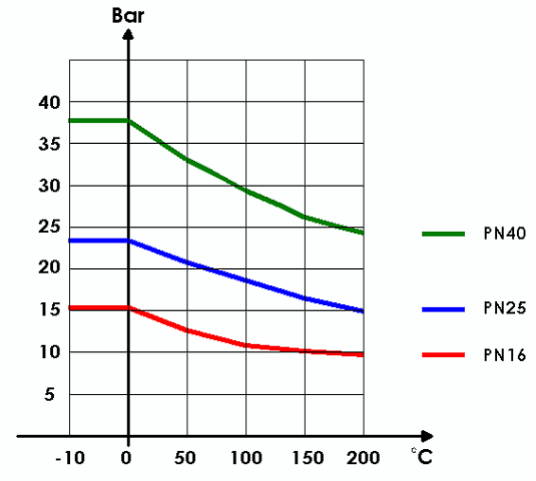
Temperature - Pressure Diagrams



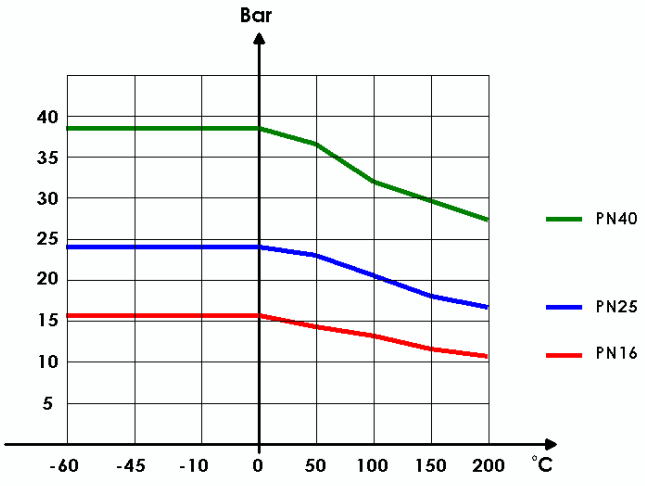
PTFE and YFC



Carbon Steel - 1.0619



Stainless Steel - 304
1.4301 and 1.4308



Stainless Steel - 316
1.4401 and 1.4408