MADE FOR THE EXTREME

QUADAX PREMIUM VALVES

QUADAX® 4-OFFSET BUTTERFLY VALVE EQ - TECHNICAL BROCHURE

DIN, EN, ISO PN 10-250 / ANSI class 150-1500

DOQX 25-011

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QUADAX® TECHNICAL BROCHURE - EQ

PREMIUM VALVE – GENERAL INFORMATION

GENERAL INFORMATION

Shut-off valve:	4-Offset (TOV upgradet)
Seal:	Metal
Pressure ratings:	PN 10 – 250 / ANSI 150 – 1500
Nominal diameters:	DN 50 – 1800, NPS 2“ – 72“
Temperatures:	-270°C to +800°C
Face-to-face length	EN 558, API 609, ISO 5752, B16.10;
Housing materials:	Steel, stainless steel, brass, special steels e.g. Monel, Duplex, Hastelloy...

Additional available:

- General drawings
- Torque values
- Tightening torques
- ISO flange 5211
- Operating and maintenance instructions
- Actuator orientation
- Coating data sheet
- Disc protrusion

Additional technical data sheets available on request: Shaft connection, pressure & temperature tables; bill of materials (BOM), bolt tightening torques, spare parts lists, operation & maintenance instructions, EC Machinery Directive,

DETAILS / CONSTRUCTION / STRUCTURE

Flanges according to DIN EN 1092 in PN 10/16/25/40/63/100/160/250
Flanges according to ANSI B16.5, 150/300/600/900/1500/ASME 16.34
4-OFFSET, round seat and sealing geometry, OCT
Torque-sealing function, open/close, control, ESD function
Cone to cone, jam and friction-free
QUADAX standard TRIM is "full rated"
Special version REDUCED TRIM, Δp A=20 bar , X=52, B=102, C=160
One-piece body
Body seat standard Inconel 625 hardened
Optional Stellite 21
Bearing protector
Seal ring as graphite or all metal lamella, Inconel O-ring, ball shape
Blowout-proof, one-piece shaft (API 609)
Face-to-face length according to EN 558-1 R13, 14, 16, 20, R110
API 609 T2, ISO 5752, ANSI B 16.10
TA Air, ISO 15848-1&2, API 641, EPA-21
CE / PED, Firesafe, ATEX Zone 1, S.I.L., ISO 9001, ISO 5211, CRN, EAC; TSG
Test standards EN 12266-1; API 598, ISO 5208, API 6D, BS 6436, EN 16668; ISO 28921, FCI 70-2
Horizontal shaft orientation (recommended)
Corrosion protection min C1 – C5M

OPTIONS

Own automation
Sealed bearing desing
High-performance bearing bush
Steam jacket
Bonnet extension (insulating part)
Top Entry Version
Stuffing box with life loaded
Hydrogen version
Oxygen version (Cleaned & BAM)
(Sniffer- & Flushing connection)

QUADAX® TECHNICAL BROCHURE - EQ

PREMIUM VALVE

BODY CONFIGURATION

QUADAX® – DOUBLE FLANGE VERSION

QUADAX® – FLANGED VERSION

QUADAX® – WELDED VERSION

QUADAX® – GATE VALVE REPLACEMENT

QUADAX® – TOP ENTRY

Nominal diameter range:	2" to 78" / DN 50 to DN 1800
Pressure ratings:	150 to 2500 / PN 10 to PN 250
Temperature range:	-270°C to +800°C
Housing material:	A216 WCB, A351 CF8M, Inconel, Hastelloy, Duplex, Monel, Copper
Seat material:	Inconel 625 cladded, Stellite 21, others on request
Tightness:	EN 12266-1 / API 609 soft seated (bubble tight)
Emission:	TA Luft / ISO 15848-1 (A) (BH & API 641)

HIGHEST PERFORMANCE AND MAXIMUM ECONOMIC EFFICIENCY

EXTREME TEMPERATURE RANGES

- Uniform wall thickness all round seat and sealing ring
- Extreme temperatures from -270°C to +800°C
- Even large temperature differences are compensated

HIGHEST TIGHTNESS

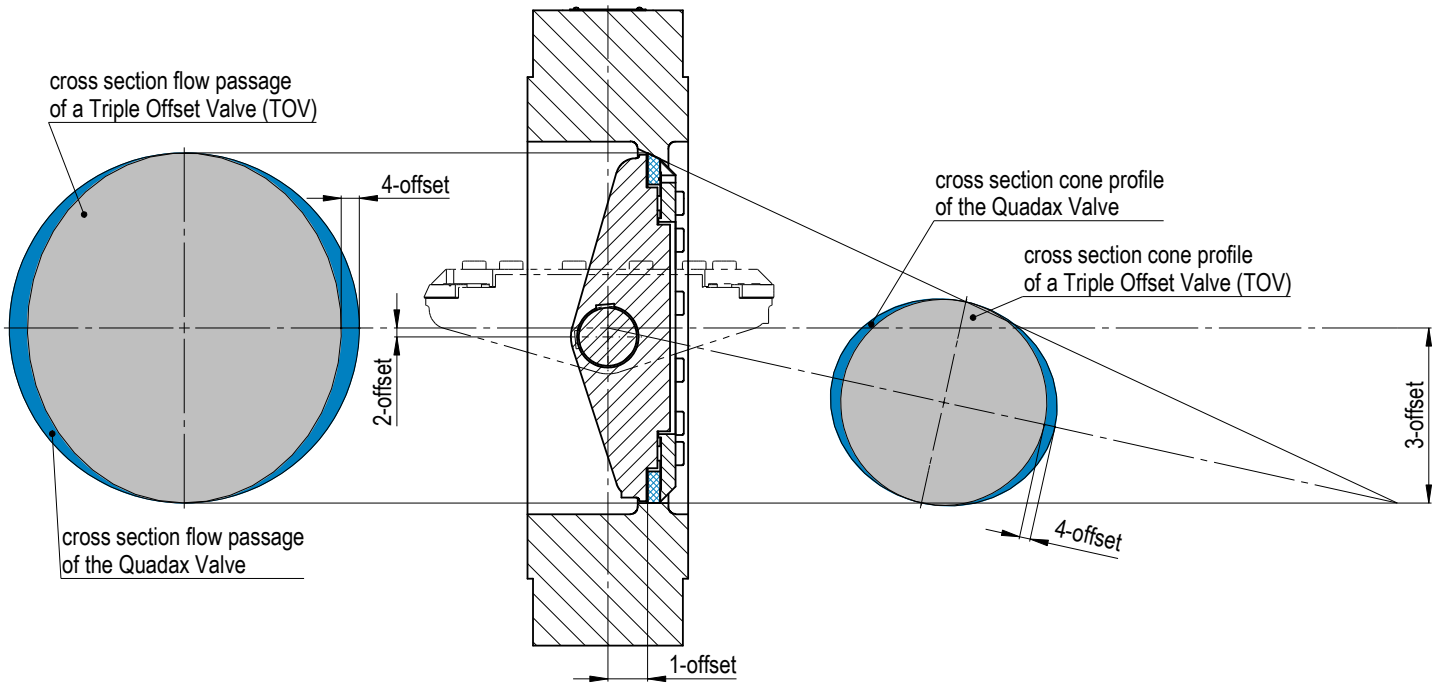
- Meets the highest sealing requirements
- Bubble-tight sealing even in cryogenic applications
- Innovative and patented seat sealing design

REDUCED PROCESS COSTS

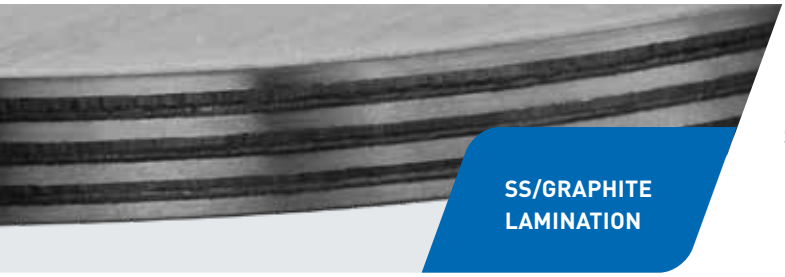
- Higher kvs/cvs values and thus lower energy loss
- Smaller dimensioning of the nominal pipe diameter
- Smaller actuators due to optimised torque requirements
- Combination of shut-off and control
- Reduced maintenance costs

INCREASED PROCESS RELIABILITY

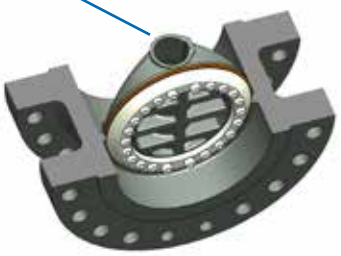
- Low friction and wear-resistant
- Reduced risk of failure
- Jamming-free seat geometry
- Increased lifespan and functionality
- Quick acting < 1 second



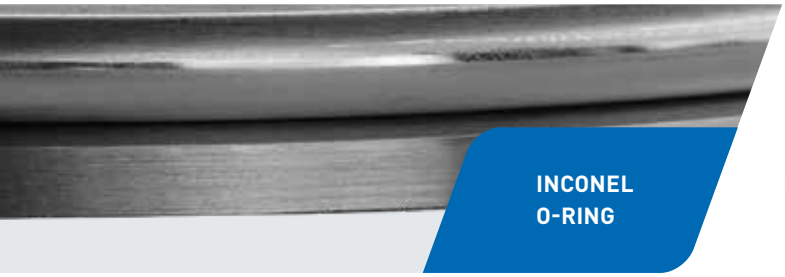
SEALING RING VERSIONS



FROM -100 °C TO +450 °C
STANDARD: 90% OF THE APPLICATIONS



FROM -100 °C TO 550 °C
STANDARD: STEAM AND HOT GAS



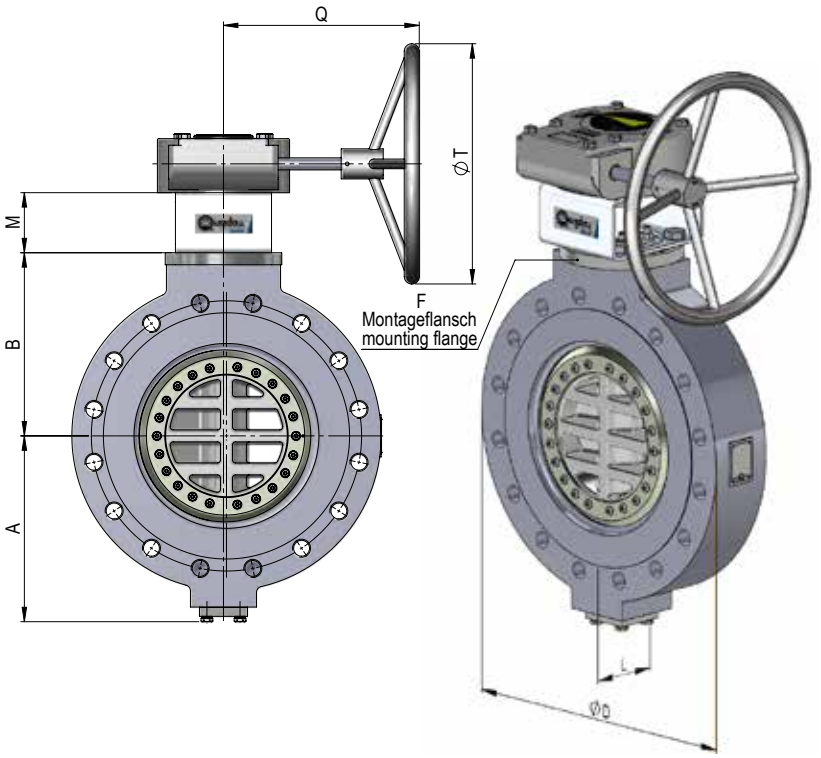
FROM -256 °C TO 800 °C
FOR EXTREME REQUIREMENTS (CLEAN SERVICES ONLY)
(HIGH PRESSURE/EXTREME TEMPERATURE)

Additional versions on request

QUADAX® DATA SHEET - EQ

LUG TYPE DIMENSION & WEIGHT

With manual gearbox FTF EN 558 R16 / API 609
Flange according to EN 12516 / ASME B16.5 _ 16.34



Trim X/A, all dimensions in mm, weights in kg

							PN 10/16 ANSI 150					PN 10					PN 16					ANSI 150				
	DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
Trim X	50	2"	105	109	F07	60	**44**	165	158	200	12	**44**	165	158	200	12	**44**	165	158	200	13
	65	2.5"	128	132	F07	60	**64**	200	217	200	22	**64**	200	217	200	22	**48**	190	217	200	18
	80	3"	128	132	F07	60	**64**	200	217	200	22	**64**	200	217	200	22	**48**	190	217	200	18
	100	4"	162	161	F10	80	**64**	230	217	200	29	**64**	230	217	200	29	**54**	230	217	200	26
	125	5"	190	189	F12	80	**70**	250	217	200	36	**70**	250	217	200	36	**58**	254	217	200	33
	150	6"	203	207	F14	80	**76**	295	282	300	52	**76**	295	282	300	52	**57**	280	282	300	44
	200	8"	240	244	F16	100	**89**	352	282	300	77	**89**	352	282	300	77	**64**	352	282	300	66
	250	10"	279	284	F16	100	**114**	405	282	300	117	**114**	405	285	400	123	**71**	405	305	500	97
Trim A	300	12"	305	310	F16	100	**114**	455	285	400	138	**114**	455	305	500	137	**81**	485	346	500	136
	350	14"	320	325	F16	100	**127**	515	346	500	195	**127**	515	346	700	195	**92**	550	346	700	182
	400	16"	345	356	F25	200	**140**	565	346	500	264	**140**	590	346	700	285	**102**	590	348	500	240
	450	18"	373	384	F25	200	**149**	615	346	700	311	**149**	640	348	500	333	**114**	640	348	700	289
	500	20"	397	408	F25	200	**152**	670	348	500	348	**152**	725	348	700	406	**127**	700	417	500	359
	600	24"	482	483	F30	200	**178**	780	417	500	531	**178**	845	417	700	629	**154**	815	417	700	540
	700	28"	580	594	F35	200	**229**	895	430	700	860	**229**	910	470	800	906	**229**	925	470	800	937
	750	30"	580	594	F35	200	**241**	970	430	700	1088	**241**	970	470	800	1103	**241**	985	470	800	1116
	800	32"	660	673	F35	200	**241**	1085	470	800	1363	**241**	1085	470	800	1377	**241**	1060	470	800	1306
	900	36"	730	744	F35	200	**241**	1115	491	500	1422	**241**	1125	491	800	1453	**241**	1170	491	800	1583
	1000	40"	817	833	F40	200	**300**	1255	491	800	2120	**300**	1255	491	800	2118	**300**	1290	541	900	2351

Subject to technical modifications

QUADAX® DATA SHEET - EQ

LUG TYPE DIMENSION & WEIGHT

With manual gearbox FTF EN 558 R16 / API 609
Flange according to EN 12516 / ASME B16.5 _ 16.34

Trim X, all dimensions in mm, weights in kg

		PN 25/40 ANSI 300				PN 25					PN 40					ANSI 300				
DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
50	2"	105	109	F07	60	**44**	165	158	200	12	**44**	165	158	200	12	**44**	165	158	200	12
65	2.5"	128	132	F07	60	**64**	200	217	200	22	**64**	200	217	200	22	**48**	210	217	200	19
80	3"	128	132	F07	60	**64**	200	217	200	22	**64**	200	217	200	22	**48**	210	217	200	19
100	4"	162	161	F10	80	**64**	230	217	200	28	**64**	230	217	200	28	**54**	254	217	200	28
125	5"	190	189	F12	80	**70**	270	217	200	39	**70**	270	217	200	39	**58**	280	237	200	46
150	6"	203	207	F14	80	**76**	295	282	300	53	**76**	295	311	300	67	**59**	320	311	300	65
200	8"	240	244	F16	100	**89**	352	285	400	83	**89**	375	326	400	97	**73**	380	-	-	-
250	10"	279	284	F16	100	**114**	425	305	500	132	**114**	450	348	500	153	**83**	445	348	500	126
300	12"	305	310	F16	100	**114**	485	346	500	165	**114**	515	346	700	183	**92**	515	348	500	160
350	14"	325	336	F25	200	**127**	550	348	500	244	**127**	585	348	700	269	**117**	585	417	500	274
400	16"	385	386	F30	200	**140**	620	348	700	333	**140**	660	417	500	384	**133**	660	417	700	376
450	18"	405	406	F30	200	**149**	680	417	500	410	**149**	680	417	700	416	**149**	710	417	700	446
500	20"	440	444	F35	200	**152**	725	417	500	487	**152**	770	417	700	540	**159**	770	430	700	568
600	24"	530	544	F35	200	**178**	845	430	700	729	**178**	908	470	800	828	**181**	908	470	800	858
700	28"	630	646	F40	200	**229**	960	491	500	1216	**229**	995	491	800	1291	**229**	1035	491	800	1408
750	30"	630	646	F40	200	**241**	1020	491	500	1395	**241**	1080	491	800	1534	**241**	1090	491	800	1526
800	32"	700	716	F40	200	**241**	1085	491	800	1526	**241**	1140	541	900	1770	**241**	1150	-	-	-
900	36"	830	836	F48	200	**241**	1185	541	900	2079	**241**	1250	-	-	-	**241**	1270	-	-	-
1000	40"	920	929	F48	-	**300**	1320	-	-	-	**300**	1360	-	-	-	**300**	1240	-	-	-

Subject to technical modifications

Trim C/B, all dimensions in mm, weights in kg

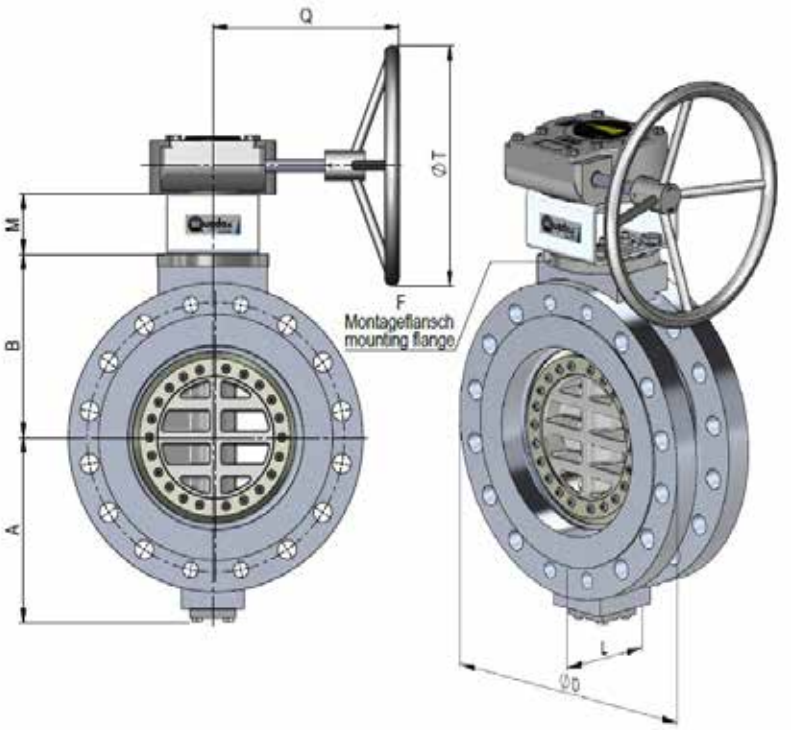
			PN 63/100 ANSI 600				PN 63					PN 100					ANSI 600				
	DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
Trim C	100	4"	170	176	F14	80	**64**	275	278	200	54	**64**	275	-	-	-	**64**	275	-	-	-
	150	6"	203	205	F16	100	**78**	355	313	300	87	**78**	355	382	300	102	**78**	355	382	300	102
Trim B	200	8"	255	257	F16	100	**102**	430	397	400	148	**102**	430	397	400	148	**102**	430	397	400	146
	250	10"	279	287	F25	200	**117**	508	417	500	226	**117**	508	430	500	236	**117**	508	430	500	238
	300	12"	335	343	F30	200	**140**	585	417	500	329	**140**	585	417	700	331	**140**	585	417	700	315
	350	14"	368	389	F35	200	**155**	655	417	700	432	**155**	655	470	800	459	**155**	655	470	800	468
	400	16"	435	446	F35	200	**178**	715	470	800	608	**178**	715	-	-	-	**178**	715	470	800	606
	450	18"	415	406	F40	200	**-**	-	-	-	-	**-**	-	-	-	-	**200**	745	491	800	763
	500	20"	528	541	F40	200	**216**	870	491	500	1071	**216**	870	491	800	1074	**216**	870	491	800	1073
	600	24"	596	609	F40	200	**232**	940	491	800	1312	**-**	-	-	-	-	**232**	940	-	-	-

Subject to technical modifications

QUADAX® DATA SHEET - EQ

DOUBLE-FLANGED

With manual gearbox FTF EN 558 R13 / API 609
Flange according to EN 12516 / ASME B16.5 _ 16.34



Trim X/A, all dimensions in mm, weights in kg

			EN558-1R13 PN 10/16 ANSI 150				PN 10					PN 16					ANSI 150				
	DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
Trim X	50	2"	105	109	F07	60	**108**	165	158	200	15	**108**	165	158	200	15	**108**	165	158	200	15
	65	2.5"	128	132	F07	60	**114**	200	217	200	23	**114**	200	217	200	23	**114**	190	217	200	22
	80	3"	128	132	F07	60	**114**	200	217	200	24	**114**	200	217	200	24	**114**	200	217	200	24
	100	4"	162	161	F10	80	**127**	230	217	200	33	**127**	230	217	200	33	**127**	230	217	200	33
	125	5"	190	189	F12	80	**140**	270	217	200	45	**140**	270	217	200	45	**140**	254	217	200	43
	150	6"	203	207	F14	80	**140**	295	282	300	59	**140**	295	282	300	59	**140**	295	282	300	58
	200	8"	240	244	F16	100	**152**	352	282	300	77	**152**	352	282	300	76	**152**	352	282	300	78
	250	10"	279	284	F16	100	**165**	405	282	300	104	**165**	405	285	400	110	**165**	405	305	500	113
Trim A	300	12"	305	310	F16	100	**178**	455	285	400	123	**178**	455	305	500	126	**178**	485	346	500	152
	350	14"	320	325	F16	100	**190**	515	346	500	165	**190**	520	346	700	175	**190**	550	346	700	202
	400	16"	345	356	F25	200	**216**	565	346	500	253	**216**	580	346	700	268	**216**	590	348	500	278
	450	18"	373	384	F25	200	**222**	615	346	700	287	**222**	640	348	500	306	**222**	640	348	700	319
	500	20"	397	408	F25	200	**229**	670	348	500	295	**229**	725	348	700	344	**229**	700	417	500	357
	600	24"	482	483	F30	200	**267**	780	417	500	513	**267**	840	417	700	565	**267**	813	417	700	562
	700	28"	580	594	F35	200	**292**	895	430	700	734	**292**	910	470	800	762	**292**	927	470	800	814
	750	30"	580	594	F35	200	**318**	970	430	700	876	**318**	970	470	800	902	**318**	985	470	800	1025
	800	32"	660	673	F35	200	**318**	1085	470	800	1047	**318**	1085	470	800	1062	**318**	1060	470	800	1193
	900	36"	730	744	F35	200	**330**	1125	491	500	1184	**330**	1125	491	800	1225	**330**	1168	491	800	1446
	1000	40"	817	833	F40	200	**410**	1255	491	800	1801	**410**	1255	491	800	1858	**410**	1290	541	900	2121

Subject to technical modifications

QUADAX® DATA SHEET - EQ

DOUBLE-FLANGED

With manual gearbox FTF EN 558 R13&14 / API 609
Flange according to EN 12516 / ASME B16.5 _ 16.34

Trim X, all dimensions in mm, weights in kg

		EN558-1R13 PN 25/40 ANSI 300				PN 25					PN 40					ANSI 300				
DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
50	2"	105	109	F07	60	108	165	158	200	15	108	165	158	200	15	108	165	158	200	16
65	2.5"	128	132	F07	60	114	200	217	200	23	114	200	217	200	23	114	210	217	200	25
80	3"	128	132	F07	60	114	200	217	200	24	114	200	217	200	24	114	210	217	200	26
100	4"	162	161	F10	80	127	230	217	200	32	127	230	217	200	32	127	254	217	200	39
125	5"	190	189	F12	80	140	270	217	200	45	140	270	217	200	45	140	280	237	200	61
150	6"	203	207	F14	80	140	295	282	300	58	140	295	311	300	72	140	320	311	300	82
200	8"	240	244	F16	100	152	352	285	400	83	152	380	326	400	108	152	380	-	-	-
250	10"	279	284	F16	100	165	425	305	500	123	165	450	348	500	146	165	445	348	500	152
300	12"	305	310	F16	100	178	485	346	500	152	178	515	346	700	193	178	515	348	500	196
350	14"	325	336	F25	200	190	550	348	500	226	190	585	348	700	282	190	585	417	500	301
400	16"	385	386	F30	200	216	620	348	700	328	216	660	417	500	398	216	660	417	700	402
450	18"	405	406	F30	200	222	680	417	500	417	222	680	417	700	416	222	710	417	700	444
500	20"	440	444	F35	200	229	725	417	500	492	229	770	417	700	558	229	770	430	700	578
600	24"	530	544	F35	200	267	845	430	700	695	267	908	470	800	847	267	908	470	800	861
700	28"	630	646	F40	200	292	960	491	500	1050	292	995	491	800	1180	292	1035	491	800	1297
750	30"	630	646	F40	200	318	1020	491	500	1213	318	1080	491	800	1411	318	1090	491	800	1520
800	32"	700	716	F40	200	318	1085	491	800	1296	318	1140	541	900	1595	318	1149	-	-	-
900	36"	830	836	F48	200	330	1185	541	900	1824	330	1250	-	-	-	330	1270	-	-	-
1000	40"	920	929	F48	-	410	1320	-	-	-	410	1360	-	-	-	410	1240	-	-	-

Subject to technical modifications

Trim C/B, all dimensions in mm, weights in kg

			EN558-1R14 PN 63/100 ANSI 600				PN 63					PN 100					ANSI 600				
	DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
Trim C	80	3"	143	139	F14	80	180	230	217	200	39	180	230	278	200	59	180	230	-	-	-
	100	4"	170	176	F14	80	190	275	278	200	82	190	275	-	-	-	190	275	-	-	-
	150	6"	203	205	F16	100	210	355	313	300	116	210	355	382	300	132	210	355	382	300	138
Trim B	200	8"	255	257	F16	100	230	430	397	400	172	230	430	397	400	182	230	430	397	400	191
	250	10"	279	287	F25	200	250	508	417	500	261	250	508	430	500	285	250	508	430	500	294
	300	12"	335	343	F30	200	270	585	417	500	359	270	585	417	700	383	270	585	417	700	388
	350	14"	368	389	F35	200	290	655	417	700	479	290	655	470	800	546	290	655	470	800	552
	400	16"	435	446	F35	200	310	715	470	800	644	310	715	-	-	-	310	715	470	800	691
	450	18"	415	406	F40	200	-	-	-	-	-	-	-	-	-	-	330	745	491	800	835
	500	20"	528	541	F40	200	350	870	491	500	1030	350	870	491	800	1136	350	870	491	800	1136
	600	24"	596	609	F40	200	390	940	491	800	1340	-	-	-	-	-	390	940	-	-	-

Subject to technical modifications

QUADAX® DATA SHEET - EQ

DOUBLE-FLANGED R 14

With manual gearbox FTF EN 558 R14 / API 609
Flange according to EN 12516 / ASME B16.5 _ 16.34

Trim X/A, all dimensions in mm, weights in kg

			EN558-1R14 PN 10/16 ANSI 150				PN 10					PN 16					ANSI 150				
	DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
Trim X	50	2"	105	109	F07	60	150	165	158	200	17	150	165	-	-	-	150	165	158	200	17
	65	2.5"	128	132	F07	60	180	200	217	200	29	180	200	217	200	29	180	200	217	200	26
	80	3"	128	132	F07	60	180	200	217	200	29	180	200	217	200	29	180	200	217	200	26
	100	4"	162	161	F10	80	190	230	217	200	37	190	230	217	200	37	190	230	217	200	39
	125	5"	190	189	F12	80	200	270	217	200	50	200	270	217	200	50	200	254	217	200	46
	150	6"	203	207	F14	80	210	300	282	300	69	210	300	282	300	69	210	295	282	300	79
	200	8"	240	244	F16	100	230	360	282	300	93	230	360	282	300	92	230	352	282	300	87
	250	10"	279	284	F16	100	250	405	282	300	110	250	405	285	400	116	250	405	305	500	129
Trim A	300	12"	305	310	F16	100	270	460	285	400	138	270	460	305	500	141	270	485	346	500	166
	350	14"	320	325	F16	100	290	515	346	500	183	290	515	346	700	190	290	550	346	700	216
	400	16"	345	356	F25	200	310	580	346	500	292	310	590	346	700	307	310	590	348	500	315
	450	18"	373	384	F25	200	330	615	346	700	327	330	640	348	500	348	330	640	348	700	361
	500	20"	397	408	F25	200	350	715	348	500	338	350	715	348	700	362	350	700	417	500	386
	600	24"	482	483	F30	200	390	780	417	500	567	390	845	417	700	637	390	813	417	700	636
	700	28"	580	594	F35	200	430	910	430	700	794	430	910	470	800	826	430	927	470	800	939
	750	30"	580	594	F35	200	470	970	430	700	973	470	970	470	800	1071	470	985	470	800	1147
	800	32"	660	673	F35	200	470	1085	470	800	1138	470	1085	470	800	1173	470	1060	470	800	1271
	900	36"	730	744	F35	200	510	1115	491	500	1330	510	1125	491	800	1463	510	1168	491	800	1580
	1000	40"	817	833	F40	200	550	1255	491	800	1943	550	1255	491	800	2012	550	1290	541	900	2161

Subject to technical modifications

Trim X, all dimensions in mm, weights in kg

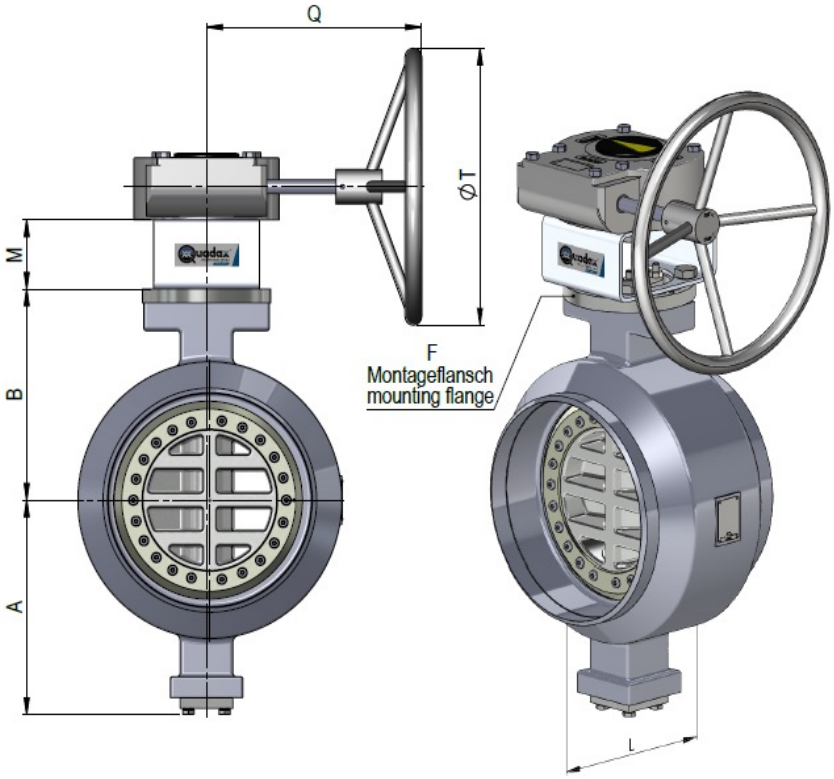
		EN558-1R14 PN 25/40 ANSI 300				PN 25					PN 40					ANSI 300				
DN	ND	A	B	F	M	L	D	Q	T	Weight	L	D	Q	T	Weight	L	D	Q	T	Weight
50	2"	105	109	F07	60	150	165	158	200	17	150	165	158	200	17	150	165	-	-	-
65	2.5"	128	132	F07	60	180	200	217	200	29	180	200	217	200	29	180	210	217	200	31
80	3"	128	132	F07	60	180	200	217	200	29	180	200	217	200	29	180	210	-	-	-
100	4"	162	161	F10	80	190	230	217	200	38	190	230	217	200	38	190	254	217	200	49
125	5"	190	189	F12	80	200	270	217	200	52	200	270	217	200	52	200	280	237	200	72
150	6"	203	207	F14	80	210	300	282	300	71	210	300	311	300	85	210	320	-	-	-
200	8"	240	244	F16	100	230	360	285	400	103	230	380	326	400	120	230	380	282	300	111
250	10"	279	284	F16	100	250	450	305	500	143	250	450	348	500	159	250	445	348	500	179
300	12"	305	310	F16	200	270	515	346	500	187	270	515	470	800	278	270	515	348	500	233
350	14"	325	336	F25	200	290	550	348	500	246	290	585	348	700	323	290	585	417	500	355
400	16"	385	386	F30	200	310	660	348	700	392	310	660	417	500	443	310	660	417	700	468
450	18"	405	406	F30	200	330	680	417	500	468	330	680	417	700	467	330	710	417	700	541
500	20"	440	444	F35	200	350	770	417	500	634	350	770	417	700	658	350	770	430	700	687
600	24"	530	544	F35	200	390	890	430	700	878	390	890	470	800	954	390	908	470	800	1075
700	28"	630	646	F40	200	430	960	491	500	1150	430	995	491	800	1306	430	1035	491	800	1519
750	30"	630	646	F40	200	470	1020	491	500	1355	470	1080	491	800	1577	470	1090	491	800	1779
800	32"	700	716	F40	200	470	1085	491	800	1388	470	1140	541	900	1760	470	1149	-	-	-
900	36"	830	836	F48	200	510	1185	541	900	1923	510	1250	491	800	2175	510	1270	-	-	-
1000	40"	920	929	F48	-	550	1320	-	-	-	550	1360	-	-	-	550	1240	-	-	-

Subject to technical modifications

QUADAX® DATA SHEET - EQ

WELD END

With manual gearbox FTF EN 558 R14 / API 609



Trim X/A, all dimensions in mm, weights in kg

			PN 10/16 ANSI 150				PN 10				PN 16				ANSI 150			
	DN	ND	A	B	F	M	L	Q	T	Weight	L	Q	T	Weight	L	Q	T	Weight
Trim X	50	2"	105	109	F07	60	**150**	158	200	12	**150**	158	200	12	**150**	158	200	12
	65	2.5"	128	132	F07	60	**180**	217	200	19	**180**	217	200	19	**180**	217	200	19
	80	3"	128	132	F07	60	**180**	217	200	19	**180**	217	200	19	**180**	217	200	19
	100	4"	162	161	F10	80	**190**	217	200	24	**190**	217	200	24	**190**	217	200	24
	125	5"	190	189	F12	80	**200**	217	200	34	**200**	217	200	34	**200**	217	200	34
	150	6"	203	207	F14	80	**210**	282	300	50	**210**	282	300	50	**210**	282	300	50
	200	8"	240	244	F16	100	**230**	282	300	70	**230**	282	300	70	**230**	282	300	70
	250	10"	279	284	F16	100	**250**	282	300	107	**250**	285	400	114	**250**	305	500	115
Trim A	300	12"	305	310	F16	100	**270**	285	400	121	**270**	305	500	122	**270**	346	500	130
	350	14"	320	325	F16	100	**290**	346	500	156	**290**	346	700	158	**290**	346	700	158
	400	16"	345	356	F25	200	**310**	346	500	228	**310**	346	700	230	**310**	348	500	230
	450	18"	373	384	F25	200	**330**	346	700	273	**330**	348	500	273	**330**	348	700	275
	500	20"	397	408	F25	200	**350**	348	500	307	**350**	348	700	309	**350**	417	500	325
	600	24"	482	483	F30	200	**390**	417	500	478	**390**	417	700	480	**390**	417	700	480
	700	28"	580	594	F35	200	**430**	430	700	591	**430**	470	800	608	**430**	470	800	608
	750	30"	580	594	F35	200	**470**	430	700	813	**470**	470	800	830	**470**	470	800	830
	800	32"	660	673	F35	200	**470**	470	800	843	**470**	470	800	844	**470**	470	800	844
	900	36"	730	744	F35	200	**510**	491	500	1025	**510**	491	800	1028	**510**	491	800	1028
	1000	40"	817	833	F40	200	**550**	491	800	1416	**550**	491	800	1416	**550**	541	900	1504

Subject to technical modifications

QUADAX® DATA SHEET - EQ

WELD END

With manual gearbox FTF EN 558 R14 / API 609

Trim X, all dimensions in mm, weights in kg

		EN558-1R14 PN 25/40 ANSI 300				PN 25				PN 40				ANSI 300			
DN	ND	A	B	F	M	L	Q	T	Weight	L	Q	T	Weight	L	Q	T	Weight
50	2"	105	109	F07	60	**150**	158	200	12	**150**	158	200	12	**150**	158	200	12
65	2.5"	128	132	F07	60	**180**	217	200	19	**180**	217	200	19	**180**	217	200	19
80	3"	128	132	F07	60	**180**	217	200	19	**180**	217	200	19	**180**	217	200	19
100	4"	162	161	F10	80	**190**	217	200	24	**190**	217	200	24	**190**	217	200	24
125	5"	190	189	F12	80	**200**	217	200	34	**200**	217	200	34	**200**	237	200	44
150	6"	203	207	F14	80	**210**	282	300	50	**210**	311	300	64	**210**	311	300	64
200	8"	240	244	F16	100	**230**	285	400	77	**230**	326	400	85	**230**	-	-	-
250	10"	279	284	F16	100	**250**	305	500	115	**250**	348	500	125	**250**	348	500	125
300	12"	305	310	F16	100	**270**	346	500	149	**270**	346	700	151	**270**	348	500	151
350	14"	325	336	F25	200	**290**	348	500	213	**290**	348	700	215	**290**	417	500	231
400	16"	385	386	F30	200	**310**	348	700	277	**310**	417	500	293	**310**	417	700	295
450	18"	405	406	F30	200	**330**	417	500	313	**330**	417	700	315	**330**	417	700	315
500	20"	440	444	F35	200	**350**	417	500	408	**350**	417	700	410	**350**	430	700	420
600	24"	530	544	F35	200	**390**	430	700	618	**390**	470	800	635	**390**	470	800	636
700	28"	630	646	F40	200	**430**	491	500	1004	**430**	491	800	1007	**430**	491	800	1007
750	30"	630	646	F40	200	**470**	491	500	1044	**470**	491	800	1047	**470**	491	800	1047
800	32"	700	716	F40	200	**470**	491	800	1248	**470**	541	900	1336	**470**	-	-	-
900	36"	830	836	F48	200	**510**	541	900	1723	**510**	-	-	-	**510**	-	-	-
1000	40"	920	929	F48	-	**550**	-	-	-	**550**	-	-	-	**550**	-	-	-

Subject to technical modifications

Trim C/B, all dimensions in mm, weights in kg

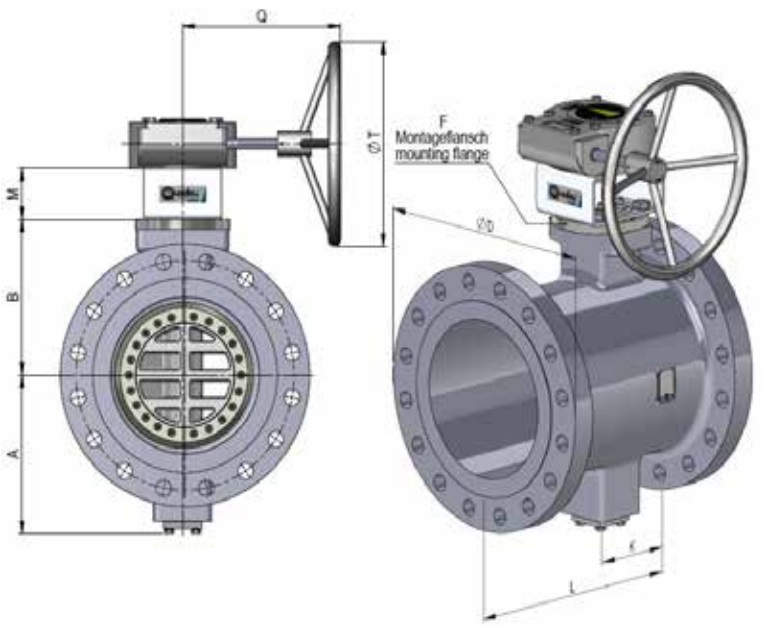
			EN558-1R14 PN 63/100 ANSI 600				PN 63				PN 100				ANSI 600			
	DN	ND	A	B	F	M	L	Q	T	Weight	L	Q	T	Weight	L	Q	T	Weight
Trim C	80	3"	143	139	F14	80	**180**	217	200	22	**180**	278	200	41	**180**	217	200	22
	100	4"	170	176	F14	80	**190**	278	200	49	**190**	-	-	-	**190**	217	200	29
	150	6"	203	205	F16	100	**210**	313	300	76	**210**	382	300	91	**210**	-	-	-
Trim B	200	8"	255	259	F16	100	**230**	397	400	117	**230**	397	400	117	**230**	-	-	-
	250	10"	279	287	F25	200	**250**	417	500	178	**250**	430	500	188	**250**	348	500	147
	300	12"	335	343	F30	200	**270**	417	500	246	**270**	417	700	248	**270**	348	700	215
	350	14"	368	389	F35	200	**290**	417	700	325	**290**	470	800	352	**290**	417	700	307
	400	16"	435	446	F35	200	**310**	470	800	451	**310**	-	-	-	**310**	430	700	418
	450	18"	415	406	F40	200	**330**	470	800	455	**330**	-	-	-	**330**	430	700	407
	500	20"	528	541	F40	200	**350**	491	500	685	**350**	491	800	688	**350**	470	800	596
	600	24"	596	609	F40	200	**390**	491	800	918	**390**	-	-	-	**390**	470	800	827

Subject to technical modifications

QUADAX® DATA SHEET - EQ

GATE VALVE REPLACEMENT

With manual gearbox FTF ANSI B16.10
Flange according to ASME B16.5 _ 16.34



Trim X/A, all dimensions in mm, weights in kg

		ANSI 150									
	ND	A	B	F	M	L	K	D	Q	T	Weight
Trim X	3"	128	132	F07	60	**203**	101	190	217	200	26
	4"	162	161	F10	80	**229**	114	230	217	200	37
	6"	203	207	F14	80	**267**	125	280	282	300	63
	8"	240	244	F16	100	**292**	134	352	282	300	97
	10"	279	284	F16	100	**330**	151	405	305	500	146
Trim A	12"	305	310	F16	100	**356**	168	485	346	500	205
	14"	320	325	F16	100	**381**	176	550	346	700	280
	16"	345	356	F25	200	**406**	190	590	348	500	350
	18"	373	384	F25	200	**432**	216	640	348	700	402
	20"	397	408	F25	200	**457**	228	700	417	500	529
	24"	482	483	F30	200	**508**	254	815	417	700	711
	28"	580	594	F35	200	**610**	305	927	470	800	1021
	30"	580	594	F35	200	**610**	305	985	470	800	1288
	32"	660	673	F35	200	**660**	330	1060	470	800	1406
	36"	730	744	F35	200	**711**	355	1168	491	800	1984

Subject to technical modifications

Trim X, all dimensions in mm, weights in kg

	ANSI 300									
ND	A	B	F	M	L	K	D	Q	T	Weight
3"	128	132	F07	60	**282**	102	210	217	200	32
4"	162	161	F10	80	**305**	110	254	217	200	49
6"	203	207	F14	80	**403**	125	320	311	300	102
8"	240	244	F16	-	**419**	134	380	-	-	-
10"	279	284	F16	100	**457**	151	445	348	500	212
12"	305	310	F16	100	**502**	168	515	348	500	276
14"	325	336	F25	200	**762**	176	585	417	500	496
16"	385	386	F30	200	**838**	190	660	417	700	659
18"	405	406	F30	200	**914**	217	710	417	700	793
20"	440	444	F35	200	**991**	240	770	430	700	1038
24"	530	544	F35	200	**1143**	290	908	470	800	1595
28"	630	646	F40	200	**1346**	345	1035	491	800	2130
30"	630	646	F40	200	**1397**	375	1090	491	800	2597
32"	700	716	F40	-	**1524**	395	1149	-	-	-
36"	830	836	F48	-	**1727**	445	1270	-	-	-

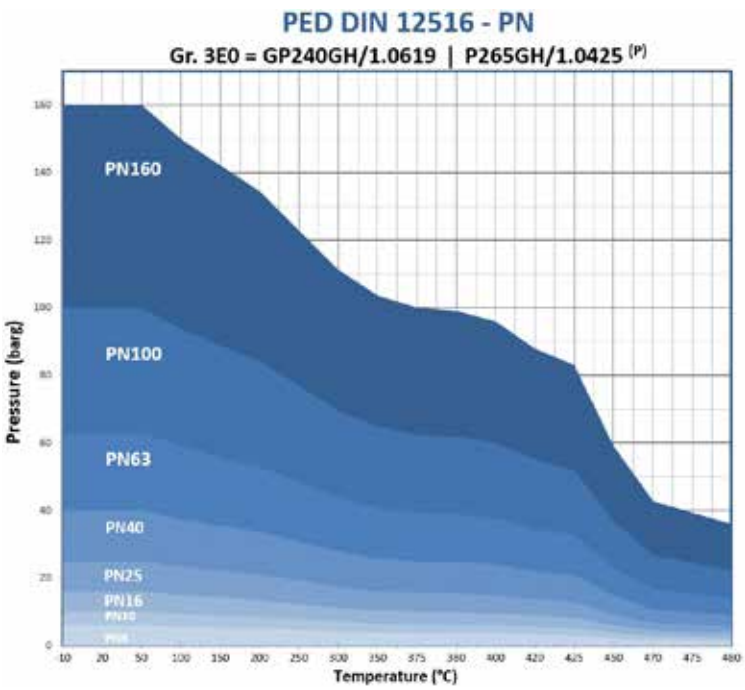
Subject to technical modifications

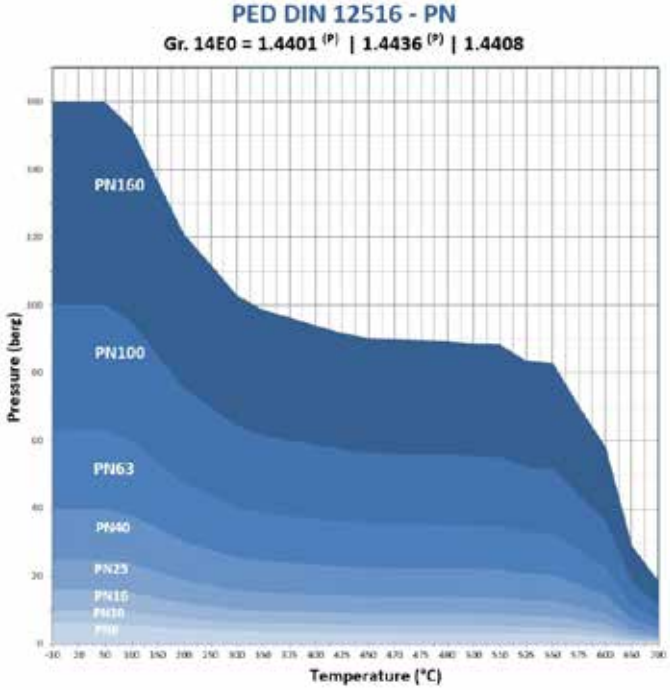
Trim C/B, all dimensions in mm, weights in kg

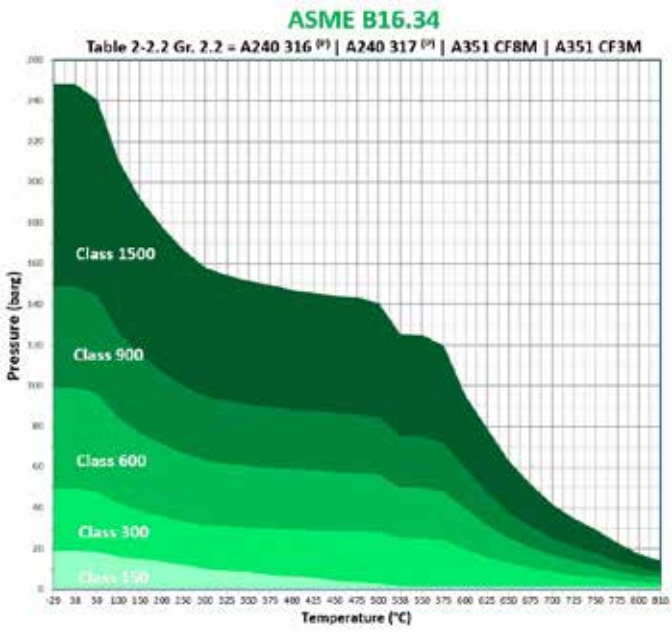
		ANSI 600									
	ND	A	B	F	M	L	K	D	Q	T	Weight
Trim C	3"	143	139	F14	-	**384**	103	210	-	-	-
	4"	170	176	F14	-	**462**	111	273	-	-	-
	6"	203	205	F16	100	**559**	153	355	382	300	158
Trim B	8"	255	257	F16	100	**660**	165	420	397	400	230
	10"	279	287	F25	200	**787**	196	508	430	500	380
	12"	335	343	F30	200	**838**	194	560	417	700	548
	14"	368	389	F35	200	**889**	207	605	470	800	690
	16"	435	446	F35	200	**991**	283	685	470	800	1001
	18"	415	406	F40	200	**1092**	240	745	491	800	1153
	20"	528	541	F40	200	**1194**	251	815	491	800	1449
	24"	596	609	F40	-	**1397**	299	940	-	-	-

Subject to technical modifications

QUADAX P&T RATING (pressure & temperature)







Additional materials and information available on request

QUADAX® DATA SHEET - EQ

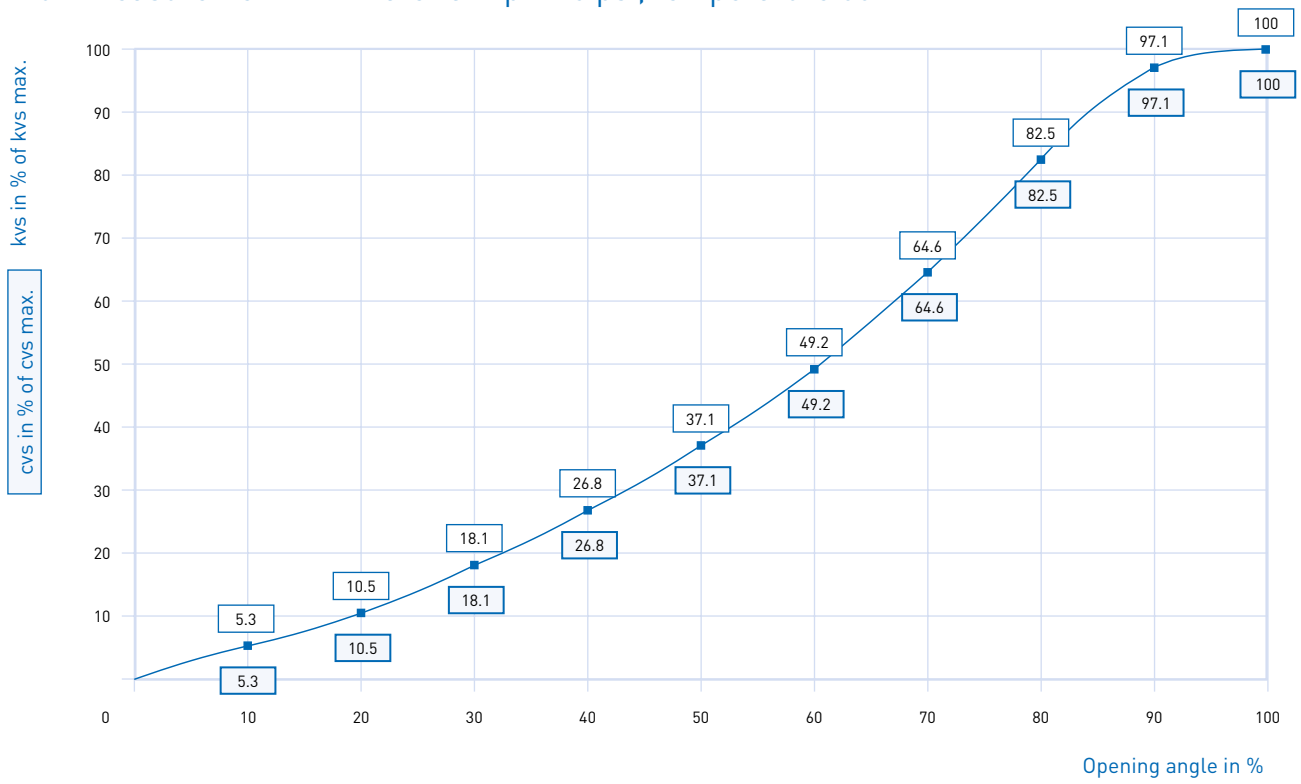
KVS/CVS-VALUES

kvs curve

Flow measurement with water at Δp 1 bar, temperature 20 °C

cvs curve

Flow measurement with water at Δp 14.5 psi, temperature 68 °F



		DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 350	DN 400	DN 450	DN 500	DN 600	DN 700	DN 750	DN 800	DN 900	DN 1000
Trim A	Δp max. 20 bar	-	-	-	-	-	-	-	-	3837	5478	7944	10735	12921	20651	25473	32661	36123	47565	56131
Trim X	Δp max. 52 bar	38	118	118	258	418	654	1445	2451	3720	5120	7321	9986	12118	19253	23081	30015	33343	43215	51398
Trim B	Δp max. 104 bar	-	-	-	-	-	-	1254	2123	3180	4459	6282	8738	10245	16458	19826	22286	28632	38954	44444
Trim C	Δp max. 155 bar		101	101	208	344	576	1164	1916	2926	3962	5659	7989	9442	15002	18231	21026	26779	34693	40870

kvs-value (m³/h)

Trim A	Δp max. 290 psi	-	-	-	-	-	-	-	-	4462	6370	9237	12483	15024	24013	29620	37978	42003	55308	65269
Trim X	Δp max. 754 psi	44	137	137	300	486	760	1680	2850	4314	5953	8513	11612	14091	22387	26838	31702	38771	50250	59765
Trim B	Δp max. 1500 psi	-	-	-	-	-	-	1458	2469	3698	5185	7305	10160	11913	19137	23053	25914	33293	45295	51679
Trim C	Δp max. 2250 psi	-	117	117	242	400	670	1353	2228	3402	4607	6580	9290	10979	17444	21199	24658	31138	40341	47523

cvs-value (gal/min)

Subject to technical modifications

QUADAX seat tightness according to EN 12266-1/(API 598)

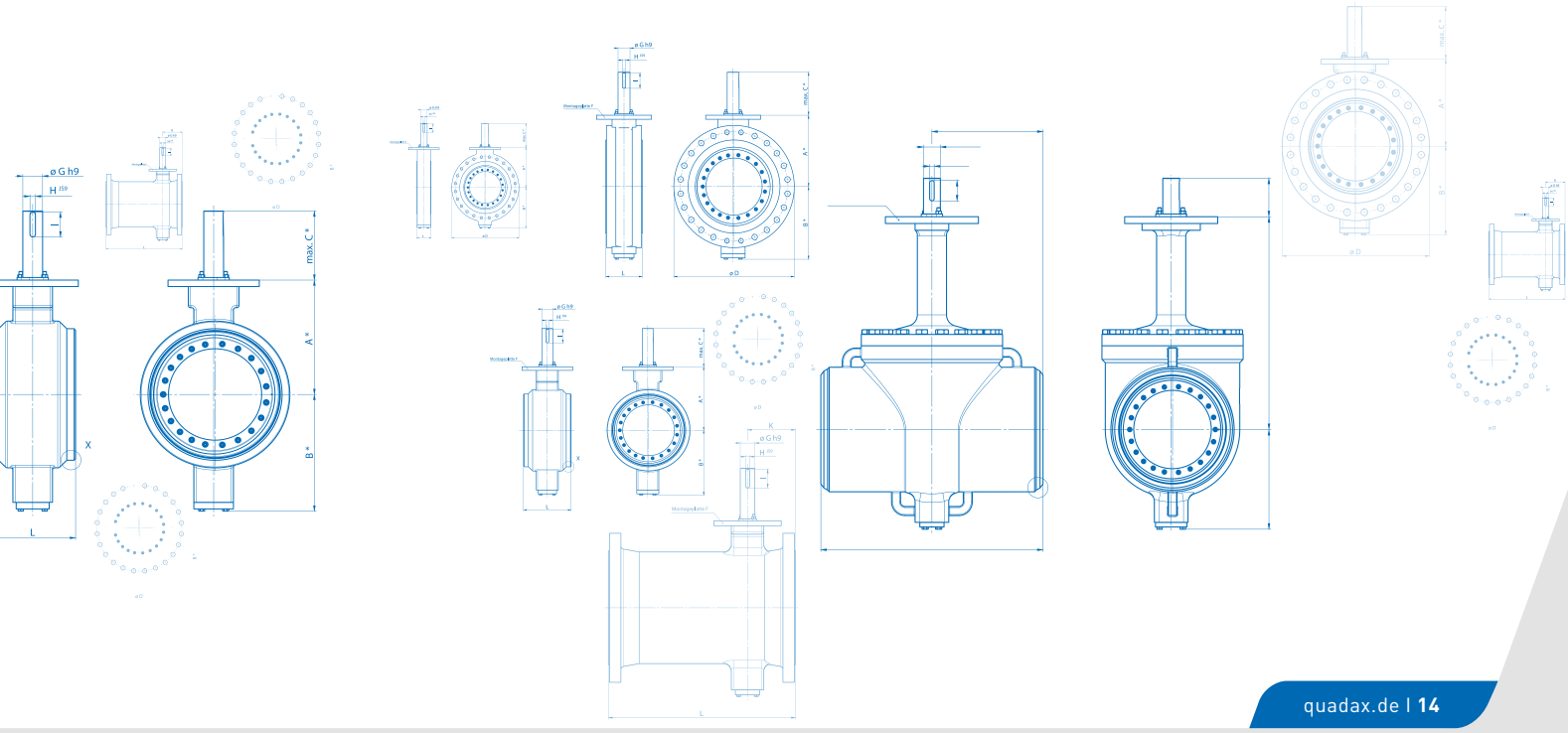
Max. permissible leakage / Comparison table

		QUADAX		EN 12266-1	EN 12266-1	API 598 metal seated	API 598 metal seated	API 598 soft seated	FCI 70-2 Class VI
DN	**NPS**	**Water**	**Air**	**Water**	**Air**	**Water**	**Air**	**Air**	**Air**
50	2	0	0	0	0	0	**0**	0	0.9
65	2.5	0	0	0	0	5	**10**	0	1.7
80	3	0	0	0	0	6	**12**	0	4
100	4	0	0	0	0	8	**16**	0	6.75
125	5	0	0	0	0	10	**20**	0	11.1
150	6	0	0	0	0	12	**24**	0	16
200	8	0	0	0	0	16	**32**	0	21.6
250	10	0	0	0	0	20	**40**	0	28.4
300	12	0	0	0	0	24	**48**	0	
350	14	0	0	0	0	28	**56**	0	
400	16	0	0	0	0	32	**64**	0	
450	18	0	0	0	0	36	**72**	0	
500	20	0	0	0	0	40	**80**	0	
600	24	0	0	0	0	48	**96**	0	
650	26	0	0*	0	0	52	**104**	0	
700	28	0	0*	0	0	56	**112**	0	
750	30	0*	0*	0	0	60	**120**	0	
800	32	0*	0*	0	0	64	**128**	0	
900	36	0*	0*	0	0	72	**144**	0	
1000	40	0*	0*	0	0	80	**160**	0	
		1.1 x PN	**6 bar**	**1.1 x PN**	**6 bar**	**Table 5**	**Table 5**		**3.0 bar**
		Drops / Minute	"Bubbles/ Minute"	Drops / Minute	Bubbles / Minute	Drops / Minute	Drops / Minute	Drops / Minute	Bubbles / Minute

not defined

Specifications apply to TRIM X in FCT direction, standard seal ring and gearbox

0* Order-related



QUADAX® DATA SHEET - EQ

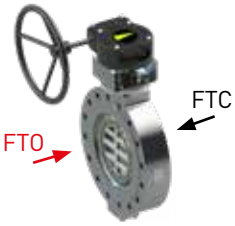
ACTUATOR ORIENTATION

ISO 5211–CONNECTION MOUNTING BRACKET

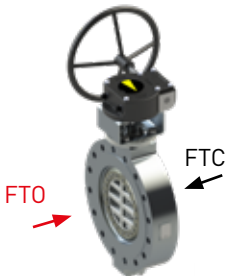
Actuator orientation (examples)

HA000 Standard

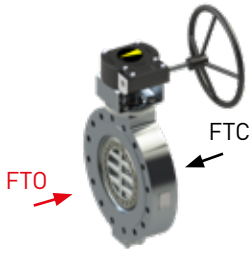
HA090



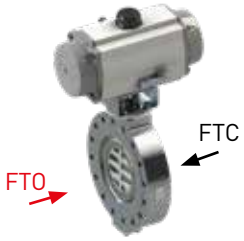
HA180



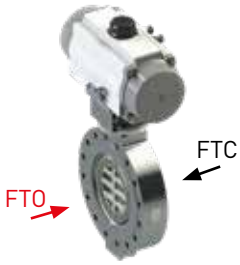
HA270



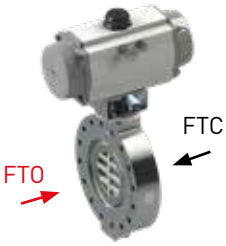
PA000 Standard



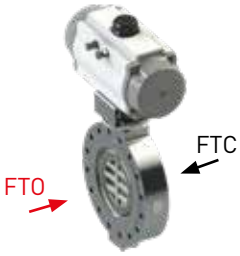
PA090



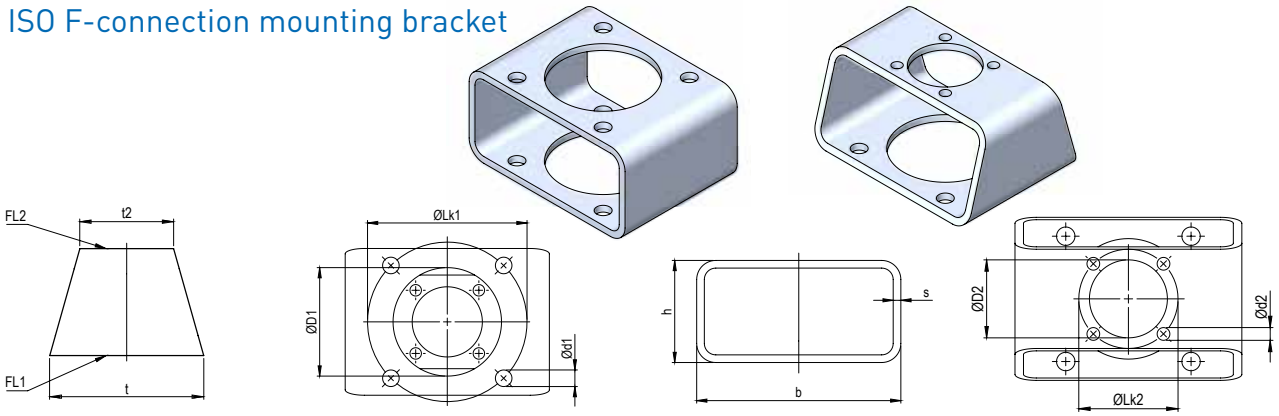
PA180



PA270



ISO F-connection mounting bracket



Dimensions - hole pattern

Designation	Bridge dimensions					Hole pattern flange 1			Hole pattern flange 2			Weight
FL1/FL2	b	h	t	t2	s	Ø Lk1	Ø D1	Quantity x d1	Ø Lk2	Ø D2	Quantity x d2	Kg
F07/F07	100	60	70	70	5	70	55	4x Ø9	70	55	4x Ø9	1.0
F10/F07	120	80	95	70	5	102	70	4x Ø11	70	55	4x Ø9	1.0
F10/F10	120	80	95	95	5	102	70	4x Ø11	102	70	4x Ø11	1.0
F12/F07	160	80	115	70	6	125	85	4x Ø13	70	55	4x Ø9	2.0
F12/F10	160	80	115	95	6	125	85	4x Ø13	102	70	4x Ø11	2.0
F12/F12	160	80	115	115	6	125	85	4x Ø13	125	85	4x Ø13	2.0
F14/F07	160	80	135	70	6	140	100	4x Ø17	70	55	4x Ø9	2.0
F14/F10	160	80	135	95	6	140	100	4x Ø17	102	70	4x Ø11	2.0
F14/F12	160	80	135	115	6	140	100	4x Ø17	125	85	4x Ø13	2.0
F14/F14	160	80	135	135	6	140	100	4x Ø17	140	100	4x Ø17	2.0
F16/F10	200	100	160	95	6	165	130	4x Ø21	102	70	4x Ø11	3.0
F16/F12	200	100	160	115	6	165	130	4x Ø21	125	85	4x Ø13	3.0
F16/F14	200	100	160	135	6	165	130	4x Ø21	140	100	4x Ø17	3.0
F16/F16	200	100	160	160	6	165	130	4x Ø21	165	130	4x Ø21	3.0

QUADAX® SECTIONAL VIEW - EQ

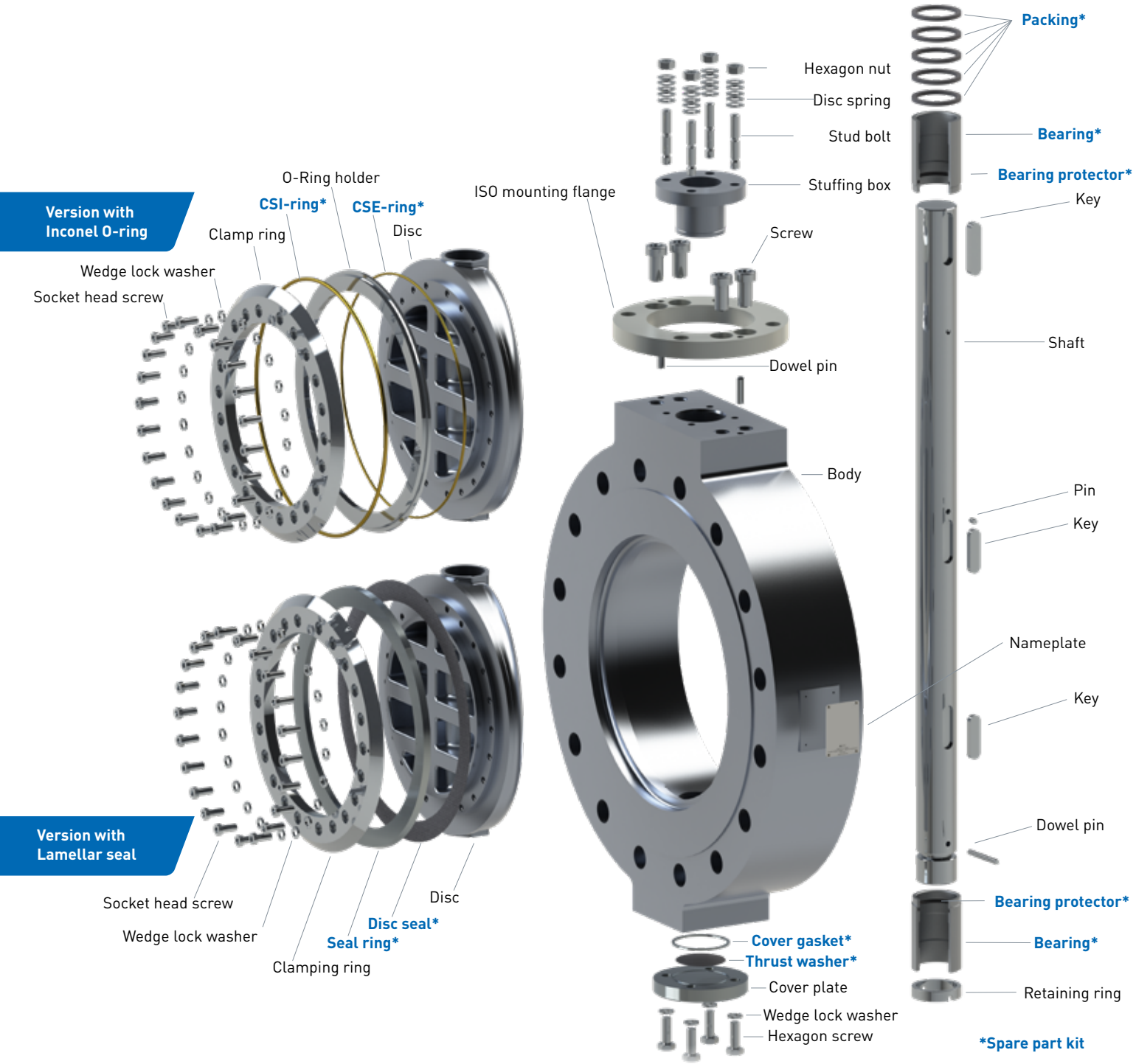
QUADAX TYPE CODE SERIES EQ...

	Style	Version (series)	Nominal diameter	Pressure rating	Flange type	Housing	Cover	Stuffing box material	Shaft	TRIM	Clamping ring	Disc	Seat	Sealing ring
EQ	I	1	500	4	X	F	F	F	X	X	X	X	X	J
	A = Lug type API 609 Category B Table 3A	1	50	0 = PN 6	X = RF Ra 3,2 - 6,3	X =GP240GH/GSC-25/A216 WCB			X =1.4057/AISI 431	X = 52 bar (direct mounting)	X = GP240GH/GSC-25/ A216 WCB		X = Inconel 625 drummed	X =1.4571 / Graphite
	B = Double Block and Bleed		65	1 = PN 10	B = NUT EN 1092 Type D	B = P265GH/HII/A516 Gr.60			B = 1.4571/AISI 316Ti	A = 20 bar (direct mounting)	B = P265GH/HII/A516 Gr.60 + ENP		B =Stellite 21	B = 1.4462 / Graphite
	E = Top Entry BW ends / ANSI B16.10 (acc #300)		80	2 = PN 16	C =groove B16.5 RTJ	C =1.7357/A217 WC6			C = 1.4980/AISI 660	B = 104 bar (direct mounting)	C =1.7357/WC6 + ENP		C = Inconel 625	C = 1.4571 Laminated
	F = Double flange EN558 R14		100	3 = PN 25	D = Raised face EN 1092 Type E	D =1.7379/A217 WC9			D = 1.4923	C = 155 bar (direct mounting)	D =1.7379/WC9 + ENP		D = Monel	D = 1.4462 Laminated
	G = Gate valve replace ANSI B16.10		125	4 = PN 40	E = Recessed face EN 1092 Type F	E =1.4552/A351 CF8C			E =1.4462/AISI 318 LN	H = 20 bar (coupling)	E =P265GH/HII/A516 Gr.60		E = Hastelloy	E = 1.4571 / PTFE
	H = Double flange DIN3202 F5		150	5 = PN 63	S = Special version	F =1.4408/A351 CF8M (AISI 316)			F = 1.4404/1.4435/ AISI 316L	J = 52 bar (coupling)	F = 1.7357/A217 WC6		S =Special version	F = 1.4462 / PTFE
	I = Double flange DIN3202 F16 (EN558-1R13)		200	6 = PN 100		G =1.4988/Cr>16% NACE			G = 1.4401/AISI 316	K = 104 bar (coupling)	G =1.7379/A217 WC9			G = 1.4571 100bar lam.
	K = Lug EN 558-R16		250	7 = PN 160		H =1.4571/A316Ti			H = 1.4541/AISI 321	L = 155 bar (coupling)	H = 1.4552/A351 CF8C			H = 1.4462 100bar Lam.
	S = Buttweld EN 558 R14		300			I =1.4401/1.4404/A240 316/ A240 316L			I = 2.4856/Inconel 625		I =1.4408/A351 CF8M (AISI 316)			I = 1.4571 PTFE O-Ring
	W = Wafer (API) EN 558 R16		350	A = class 150		J =1.6220 +QT/A352 LCB / LCC			J = Nitronic 50/AISI XM-19		J = 1.4988/Cr>16% NACE			J = 1.4571 Inconel O-Ring
			400	B = class 300		K =1.5415/16Mo3/A204 Gr.A			K = 1.4542/17.4ph1150M		K = 1.4571/A316Ti			K = 2.4856 Inconel / Graphite
			450	C = class 600		L =1.4470/Duplex/A890/A995 Gr. 4A			L = 2.4375/Monel K-500		L = 1.4401/1.4404/A240 316/A240 316L			L = G-CuZn34Al2 2.0596 Inconel O-Ring
			500	D = class 900		M =2.4856/Inconel 625			S = Special version		M = 1.6220 +QT/A352 LCB / LCC			M = 1.4404 Inconel O-Ring
			600	E = class 1500		N =Brass/G-CuZn34Al2/2.0596.01					N = 1.5415/16Mo3/A204 Gr.A			N = 1.4988 Inconel O-Ring
			700			O =1.4469/S.Duplex/A890/ A995 Gr. 5A					O = 1.4470/Duplex/A890/ A995 Gr. 4A			O =1.4410 / Graphite
			.....			P =2.4858/Inconel 825					P = 2.4856/Inconel 625			P = Spherical profile 1.4571
			1800			Q =1.4409/A351 CF3M (AISI 316L)					Q = Brass/G-CuZn34Al2/2.0596.01			Q = Spherical profile 1.4462
						R =1.4410/S.Duplex/UNS S32750					R = 1.4469/S.Duplex/A890/ A995 Gr. 5A			R = Spherical profile 1.4980
						T = Hastelloy					T = 2.4858/Inconel 825			S = Special version
						U = Monel					1.4409/A351 CF3M (AISI 316L)			
						S = Special version					1.4410/S.Duplex/UNS S32750			
											T = Hastelloy			
											U = Monel			
											S = Special version			

Example type code
EQI 1 500 4 XF XXXXJ

QUADAX® SECTIONAL VIEW - EQ

EXPLODED VIEW



QUADAX Material Bill of Materials (BOM)

Housing material	Disc material	Shaft material	Seat material	Sealing ring
Carbon steel 1.0619	Carbon steel 1.0619	1.4057	Inconell 625	1.4571/Grafit
Stainless steel 1.4408	Stainless steel 1.4408	1.4571	Stellite 21	1.4571 lamella
16Mo3	Bronze	1.4980	Special	Inconel O-ring
Bronze	Monel	Nitronic 50		Duplex/graphite
Monel	Inconell	17-4 ph		Inconel/graphite
Inconell	Hastelloy	Monel K500		ball shape
Hastelloy	Duplex	Hastelloy		
Duplex	HT steels			
HT steels				

Additional versions on request