

Tom Disco[®] 302A (Wafer) / 303Q (Lugged)

Lock Lever Type 302A-1T (80mm to 150mm)

■ -29 to less than 250 degrees C

Nominal size		Dimension (mm)									Lever type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	W		
80	3	89	127	48	22	95	147	T ₁₀ , T ₂₀	117	300	1T-2	7.1
100	4	112	156	54	24	110	170	T ₁₀ , T ₂₀	117	300	1T-2	8.3
125	5	137	185	56	23	139	185	T ₁₀ , T ₂₀	117	300	1T-2	11.4
150	6	163	216	57	23.5	164	205	T ₁₀ , T ₂₀	125	350	1T-3	14.6

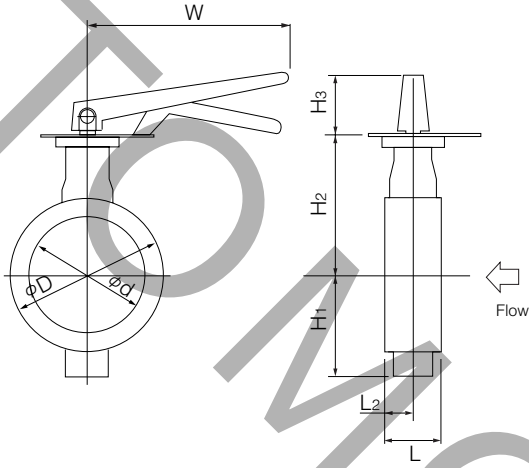
■ 250 to less than 400 degrees C

Nominal size		Dimension (mm)									Lever type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	W		
80	3	89	127	48	22	95	147	T ₁₀ , T ₂₀	217	300	1T-2	9.7
100	4	112	156	54	24	110	170	T ₁₀ , T ₂₀	217	300	1T-2	10.9
125	5	137	185	56	23	139	185	T ₁₀ , T ₂₀	217	300	1T-2	14.2
150	6	163	216	57	23.5	164	205	T ₁₀ , T ₂₀	297	350	1T-3	21.3

■ 400 to 600 degrees C

Nominal size		Dimension (mm)									Lever type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	W		
80	3	89	127	48	22	95	297	T ₁₀	217	300	1T-2	15
100	4	112	156	54	24	110	320	T ₁₀	217	300	1T-2	16.2
125	5	137	185	56	23	139	335	T ₁₀	217	300	1T-2	19.6
150	6	163	216	57	23.5	164	385	T ₁₀	297	350	1T-3	28.8

■302A-1T



■302A-1T Actuator Mounting Finish by Temperature

Temp.range	-29 to less than 250 degrees C	250 to less than 400 degrees C	400 to 600 degrees C
Body	80mm to 150mm	SCS14A SCPH2	SCS14A

■1T Installation Direction

<p>Retainer Side</p> <p>Stem Side</p> <p>1TA</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>1TB</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>1TC</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>1TD</p>
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Tom Disco 302A (Wafer) / 303Q (Lugged)

Worm Gear Type 302A-2U (80mm to 150m) / 302A-2S (200mm to 600mm)

■ -29 to less than 250 degrees C

Nominal size		Dimension (mm)												Gear type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	E	K	F	ϕW		
80	3	89	127	48	22	95	147	T ₁₀ ,T ₂₀	61	44	53	173.5	160	2U-2	7.9
100	4	112	156	54	24	110	170	T ₁₀ ,T ₂₀	61	44	53	173.5	160	2U-2	9.1
125	5	137	185	56	23	139	185	T ₁₀ ,T ₂₀	61	44	53	173.5	160	2U-2	12.4
150	6	163	216	57	23.5	164	205	T ₁₀ ,T ₂₀	77.5	87.5	90	222.5	200	2U-4	29
200	8	213	269	64	27	190	235	T ₁₀ ,T ₂₀	72	85	126	246	280	DGH-2	33
250	10	263	330	71	31	236	283	T ₁₀ ,T ₂₀	97	117	164	335	355	DGH-3	62
300	12	315	381	81	35	246	310	T ₁₀ ,T ₂₀	97	117	164	335	355	DGH-3	72
350	14	350	416	92	39.5	308	340	A,B,C	97	117	164	335	355	DGH-3	99
400	16	400	475	102	39	348	372	A	97	117	164	335	355	DGH-3	124
								B,C	215	140	198	402	450	DGH-4	162
450	18	450	534	114	43	366	406	A,B	127	140	198	402	450	DGH-4	198
								C	127	140	198	432	355	DGH-4+R/G5	200
500	20	500	589	127	50	405	442	A	127	140	198	402	450	DGH-4	236
								B,C	127	140	198	432	355	DGH-4+R/G5	238
600	24	600	693	154	64	461	493	A	127	140	198	432	355	DGH-4+R/G5	338
								B,C	245	185	264	497	355	DGH-4.5+R/G5	413

■ 250 to less than 400 degrees C

Nominal size		Dimension (mm)												Gear type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	E	K	F	ϕW		
80	3	89	127	48	22	95	147	T ₁₀ ,T ₂₀	134.5	44	53	173.5	160	2U-2	10.5
100	4	112	156	54	24	110	170	T ₁₀ ,T ₂₀	134.5	44	53	173.5	160	2U-2	11.7
125	5	137	185	56	23	139	185	T ₁₀ ,T ₂₀	134.5	44	53	173.5	160	2U-2	17.2
150	6	163	216	57	23.5	164	205	T ₁₀ ,T ₂₀	223	87.5	90	222.5	200	2U-4	35
200	8	213	269	64	27	190	235	T ₁₀ ,T ₂₀	217	85	126	246	280	DGH-2	39
250	10	263	330	71	31	236	283	T ₁₀ ,T ₂₀	205	117	164	335	355	DGH-3	75
300	12	315	381	81	35	246	310	T ₁₀ ,T ₂₀	205	117	164	335	355	DGH-3	85
350	14	350	416	92	39.5	308	340	A, B	205	117	164	335	355	DGH-3	108
400	16	400	475	102	39	348	372	A	205	117	164	335	355	DGH-3	134
								B	215	140	198	402	450	DGH-4	162
450	18	450	534	114	43	366	406	A, B	245	140	198	402	450	DGH-4	212
500	20	500	589	127	50	405	442	A	245	140	198	402	450	DGH-4	250
								B	245	140	198	432	355	DGH-4+R/G5	252
600	24	600	693	154	64	461	493	A	245	140	198	432	355	DGH-4+R/G5	351
								B	245	185	264	497	355	DGH-4.5+R/G5	413

■ 2U/2S Installation Direction

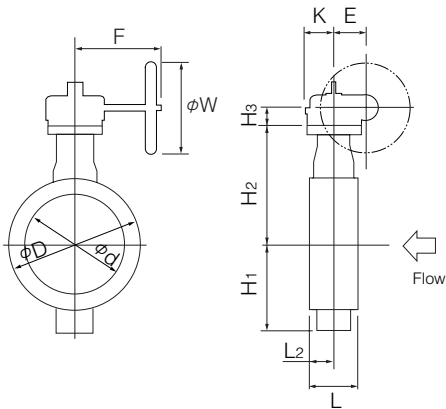
<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p>	<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p>	<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p>	<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p>
2UA/2SA	2UB/2SB	2UC/2SC	2UD/2SD

Worm Gear Type 302A-2U (80mm to 150m) / 302A-2S (200mm to 600mm)

■ 400 to 600 degrees C

Nominal size		Dimension (mm)												Gear type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	E	K	F	ϕW		
80	3	89	127	48	22	95	297	T ₁₀	134.5	44	53	173.5	160	2U-2	16
100	4	112	156	54	24	110	320	T ₁₀	134.5	44	53	173.5	160	2U-2	17.2
125	5	137	185	56	23	139	335	T ₁₀	134.5	44	53	173.5	160	2U-2	22.7
150	6	163	216	57	23.5	164	385	T ₁₀	223	87.5	90	222.5	200	2U-4	42.5
200	8	213	269	64	27	190	415	T ₁₀	217	85	126	246	280	DGH-2	47
250	10	263	330	71	31	236	503	T ₁₀	205	117	164	335	355	DGH-3	88
300	12	315	381	81	35	246	530	T ₁₀	205	117	164	335	355	DGH-3	98
350	14	350	416	92	39.5	308	560	B	205	117	164	335	355	DGH-3	124
400	16	400	475	102	39	348	592	B	215	140	198	402	450	DGH-4	178
450	18	450	534	114	43	366	626	B	245	140	198	402	450	DGH-4	228
500	20	500	589	127	50	405	662	B	245	140	198	432	355	DGH-4+R/G5	270
600	24	600	693	154	64	461	713	B	245	185	264	497	355	DGH-4.5+R/G5	432

■ 302A-2U/2S



■ 302A-2U/2S Actuator Mounting Finish by Temperature

Body	Temp. range			Temp. range		
	80mm to 300mm	350mm to 600mm		400mm (DGH-4) 600mm (DGH-4.5 +R/G5)		
	 -29 to less than 250 degrees C	 250 to less than 400 degrees C	 400 to 600 degrees C	 -29 to less than 400 degrees C	 400 to 600 degrees C	
	SCS14A SCPH2	SCS13A SCPH2	SCS14A	SCS13A SCPH2	SCS13A	

Tom Disco[®]302A(Wafer)/303Q(Lugged)

Double-acting Pneumatic Cylinder Type 302A-3E (80mm to 300mm)

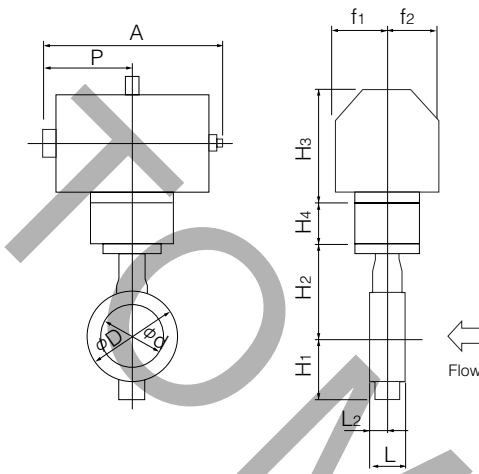
1.0 MPa or less

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	H ₃	H ₄	A	P	f ₁	f ₂		
80	3	89	127	48	22	95	147	133	26.5	226	136	53	51	K70	10
100	4	112	156	54	24	110	170	157	26.5	330	169	65	58	K170	14
125	5	137	185	56	23	139	185	157	26.5	330	169	65	58	K170	17
150	6	163	216	57	23.5	164	205	184	29.5	409	207	83	69	K370	26
200	8	213	269	64	27	190	235	224	29.5	518	260	101	85	K700	42
250	10	263	330	71	31	236	283	224	190	518	260	101	87.5	K700	70
300	12	315	381	81	35	246	310	224	190	518	260	101	87.5	K700	79

Over 1.0 MPa to 2.0 MPa

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	H ₃	H ₄	A	P	f ₁	f ₂		
80	3	89	127	48	22	95	147	157	26.5	330	169	65	58	K170	10
100	4	112	156	54	24	110	170	157	26.5	330	169	65	58	K170	14
125	5	137	185	56	23	139	185	184	26.5	409	207	83	69	K370	17
150	6	163	216	57	23.5	164	205	184	29.5	409	207	83	69	K370	26
200	8	213	269	64	27	190	235	224	29.5	518	260	101	85	K700	42

302A-3E



302A-3E Actuator Mounting Finish by Temperature

Temp.range	-29 to less than 250 degrees C	250 to less than 400 degrees C	400 to 600 degrees C		-29 to less than 400 degrees C	400 to 600 degrees C
Body	80mm to 200mm	SCS14A SCPH2	SCS14A		250mm 300mm	SCS14A SCPH2
					350mm	SCS13A SCPH2

3E Installation Direction

<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p>	<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p>	<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p>	<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p>
3EA	3EB	3EC	3ED

Tom Disco[®] 302A (Wafer) / 303Q (Lugged)

Double-acting Pneumatic Cylinder Type 302A-3A (250mm to 600mm)

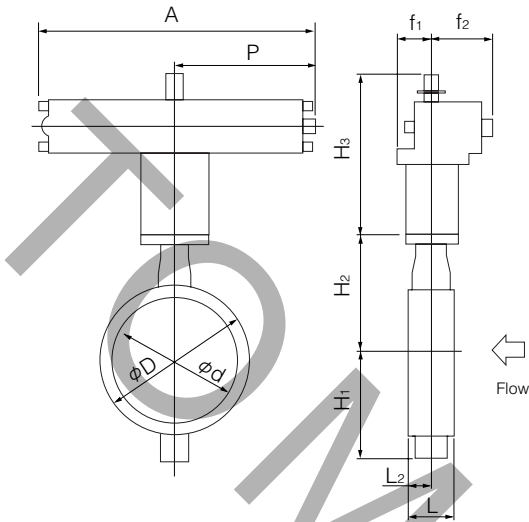
■ -29 to less than 400 degrees C

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	A	P	f ₁	f ₂		
250	10	263	330	71	31	236	283	T ₂₀	424	743	381	100	164	TGA-125	79
300	12	315	381	81	35	246	310	T ₂₀	424	743	381	100	164	TGA-125	88
350	14	350	416	92	39.5	308	340	A	424	743	381	100	164	TGA-125	110
								B, C	472	810	417	100	180	TGA-140	121
400	16	400	475	102	39	348	372	A, B	472	810	417	100	180	TGA-140	147
								C	510	939	483	130	202	TGA-160	214
450	18	450	534	114	43	366	406	A	502	810	417	100	180	TGA-140	207
								B, C	530	939	483	130	202	TGA-160	263
500	20	500	589	127	50	405	442	A	530	939	483	130	202	TGA-160	302
								B, C	543	1053	543	130	218	TGA-180	330
600	24	600	693	154	64	461	493	A	543	1053	543	130	218	TGA-180	431
								B	610	1163	599	160	253	TGA-200	475
								C	640	1248	642	160	270	TGA-220	535

■ 400 to 600 degrees C

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	A	P	f ₁	f ₂		
350	14	350	416	92	39.5	308	560	B	472	810	417	100	180	TGA-140	136
400	16	400	475	102	39	348	592	B	472	810	417	100	180	TGA-140	163
450	18	450	534	114	43	366	626	B	530	939	483	130	202	TGA-160	280
500	20	500	589	127	50	405	662	B	543	1053	543	130	218	TGA-180	348
600	24	600	693	154	64	461	713	B	610	1163	599	160	253	TGA-200	494

■302A-3A



■302A-3A

Actuator Mounting Finish by Temperature

Temp.range	-29 to less than 400 degrees C	400 to 600 degrees C
Body	350mm to 600mm SCS13A SCPH2	SCS13A

■3A Installation Direction

<p>Retainer Side</p> <p>Stem Side</p> <p>3AA</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>3AB</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>3AC</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>3AD</p>
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Tom Disco® 302A (Wafer) / 303Q (Lugged)

Single-acting Pneumatic Cylinder Type 302A-3F (Air to open: 80mm to 150mm) / 302A-3G (Air to close: 80mm to 150mm)

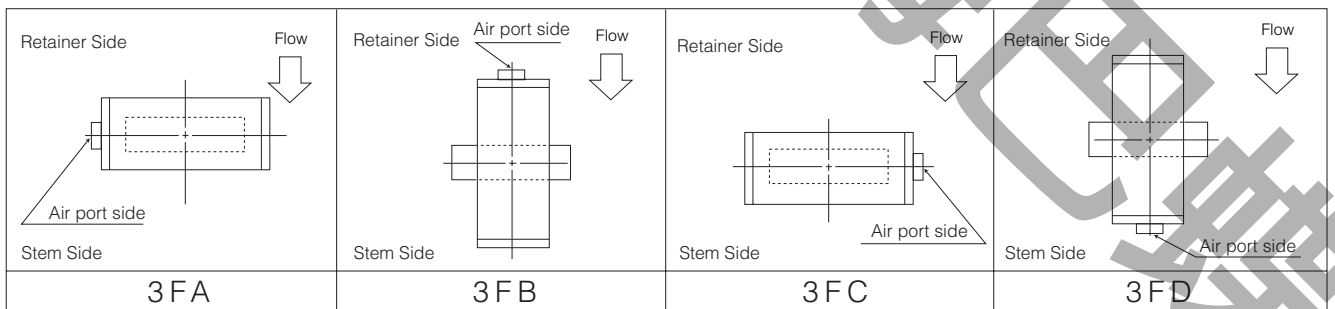
1.0 MPa or less

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	H ₃	H ₄	A	P	f ₁	f ₂		
80	3	89	127	48	22	95	147	157	26.5	444	218.5	65	58	K170S	15
100	4	112	156	54	24	110	170	184	26.5	545	269	83	69	K370S	23
125	5	137	185	56	23	139	185	224	26.5	707	350	101	85	K700S	40.5
150	6	163	216	57	23.5	164	205	224	29.5	707	350	101	85	K700S	44.5

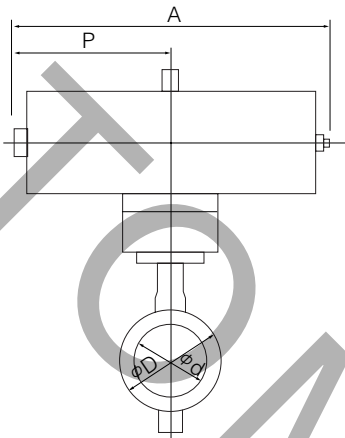
Over 1.0 MPa to 2.0 MPa

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	H ₃	H ₄	A	P	f ₁	f ₂		
80	3	89	127	48	22	95	147	184	26.5	545	269	83	69	K370S	22
100	4	112	156	54	24	110	170	224	26.5	707	350	101	85	K700S	37.5
125	5	137	185	56	23	139	185	224	26.5	707	350	101	85	K700S	40.5

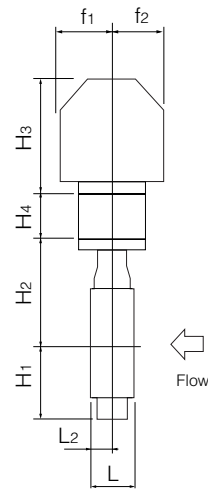
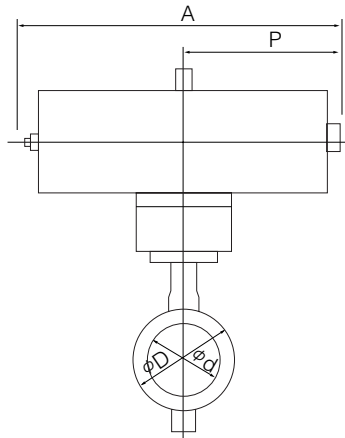
3F Installation Direction



■ 302A-3F



■ 302A-3G



■ 302A-3F/3G Actuator Mounting Finish by Temperature

Temp.range	-29 to less than 250 degrees C	250 to less than 400 degrees C	400 to 600 degrees C
Body	80mm to 150mm	SCS14A SCPH2	SCS14A

■ 3G Installation Direction

<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p> <p>3 G A</p>	<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p> <p>3 G B</p>	<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p> <p>3 G C</p>	<p>Retainer Side</p> <p>Air port side</p> <p>Stem Side</p> <p>Flow</p> <p>3 G D</p>
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Tom Disco® 302A (Wafer) / 303Q (Lugged)

Single-acting Pneumatic Cylinder Type 302A-3U (Air to open: 150mm to 600mm) / 302A-3K (Air to close: 150mm to 600mm)

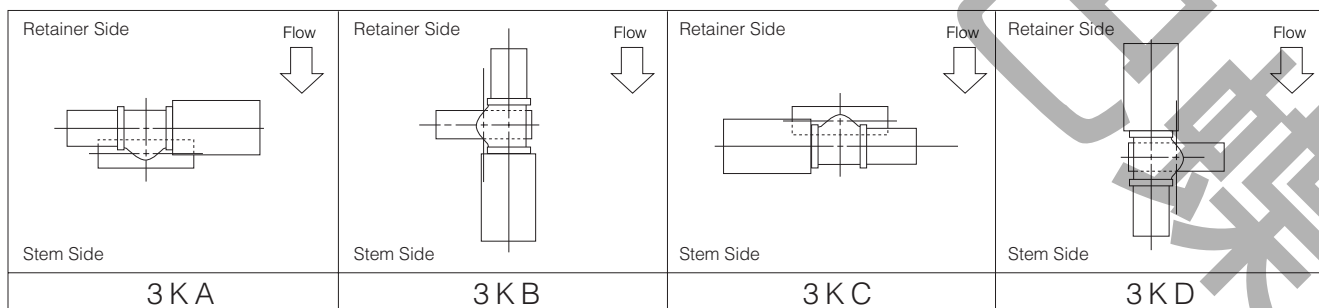
■ -29 to 400 less than degrees C

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	A	P	f ₁	f ₂		
150	6	163	216	57	23.5	164	205	T ₂₀	377	945	585	70	165	TG-10S	69
200	8	213	269	64	27	190	235	T ₁₀ , T ₂₀	377	1080	720	94	206	TG-12S	122
250	10	263	330	71	31	236	283	T ₁₀	417	1080	720	94	206	TG-12S	141
								T ₂₀	450	1255	865	131	257	TG-14S	237
300	12	315	381	81	35	246	310	T ₁₀	417	1080	720	94	206	TG-12S	150
								T ₂₀	450	1255	865	131	257	TG-14S	246
350	14	350	416	92	39.5	308	340	A	450	1255	865	131	257	TG-14S	264
								B, C	602	1655	1095	164	348	TG-20S	485
400	16	400	475	102	39	348	372	A	450	1255	865	131	257	TG-14S	292
								B, C	602	1655	1095	164	348	TG-20S	512
450	18	450	534	114	43	366	406	A, B, C	624	1655	1095	164	348	TG-20S	564
500	20	500	589	127	50	405	442	A, B	624	1655	1095	164	348	TG-20S	602
600	24	600	693	154	64	461	493	A	624	1655	1095	164	348	TG-20S	701

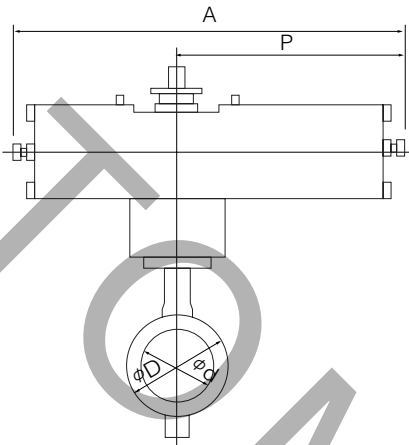
■ 400 to 600 degrees C

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	A	P	f ₁	f ₂		
200	8	213	269	64	27	190	415	T ₁₀	377	1080	720	94	206	TG-12S	130
250	10	263	330	71	31	236	503	T ₁₀	417	1080	720	94	206	TG-12S	154
300	12	315	381	81	35	246	530	T ₁₀	417	1080	720	94	206	TG-12S	164
350	14	350	416	92	39.5	308	560	B	602	1655	1095	164	348	TG-20S	500
400	16	400	475	102	39	348	592	B	602	1655	1095	164	348	TG-20S	528
450	18	450	534	114	43	366	626	B	624	1655	1095	164	348	TG-20S	582
500	20	500	589	127	50	405	662	B	624	1655	1095	164	348	TG-20S	620

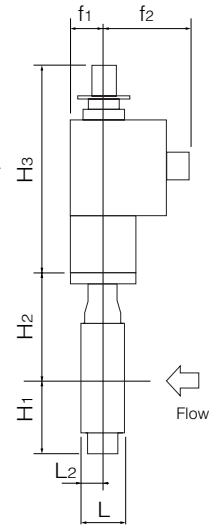
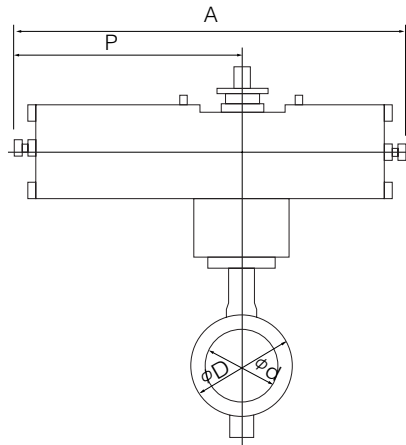
■ 3K Installation Direction



302A-3K



302A-3U



302A 3U/3K Actuator Mounting Finish by Temperature

Temp.range	-29 to less than 400 degrees C	400 to 600 degrees C
Body	150mm to 300mm	SCS14A SCPH2
	350mm to 600mm	SCS13A SCPH2
		SCS14A
		SCS13A

3U Installation Direction

<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p> <p>3UA</p>	<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p> <p>3UB</p>	<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p> <p>3UC</p>	<p>Retainer Side</p> <p>Flow</p> <p>Stem Side</p> <p>3UD</p>
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Tom Disco® 302A (Wafer) / 303Q (Lugged)

Single Phase Electric Motor Type 302A-4 I (80mm to 400mm)

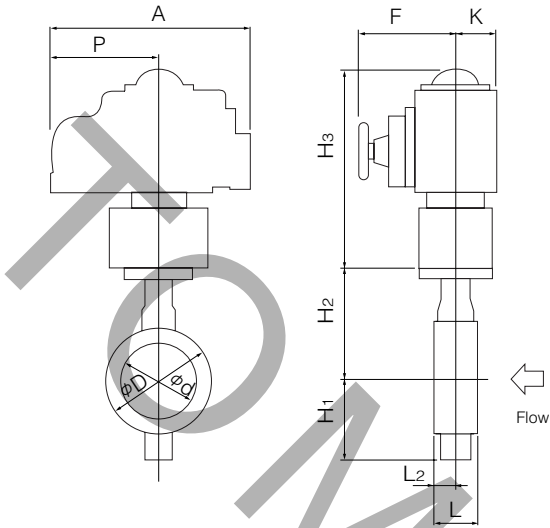
■ -29 to less than 400 degrees C

Nominal size		Dimension (mm)												Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	A	P	F	K		
80	3	89	127	48	22	95	147	T ₁₀	250	202	100	85	54	4 I-0	12.1
								T ₂₀	265	252	138	126	65	4 I-1	14.3
100	4	112	156	54	24	110	170	T ₁₀	265	252	138	126	65	4 I-1	15.5
								T ₂₀	298	310	167	154	85	4 I-2	21.5
125	5	137	185	56	23	139	185	T ₁₀ , T ₂₀	298	310	167	154	85	4 I-2	24.5
150	6	163	216	57	23.5	164	205	T ₁₀	373	310	167	154	85	4 I-2	29.5
								T ₂₀	373	310	167	154	85	4 I-2.5	31
200	8	213	269	64	27	190	235	T ₁₀	373	310	167	154	85	4 I-2.5	39
								T ₂₀	405	388	223	246	136	4 I-3	49
250	10	263	330	71	31	236	283	T ₁₀ , T ₂₀	420	388	223	246	136	4 I-3	66
300	12	315	381	81	35	246	310	T ₁₀ , T ₂₀	420	388	223	246	136	4 I-3	75
350	14	350	416	92	39.5	308	340	A, B	423	388	223	246	136	4 I-4	96
400	16	400	475	102	39	348	372	A	423	388	223	246	136	4 I-4	123

■ 400 to 600 degrees C

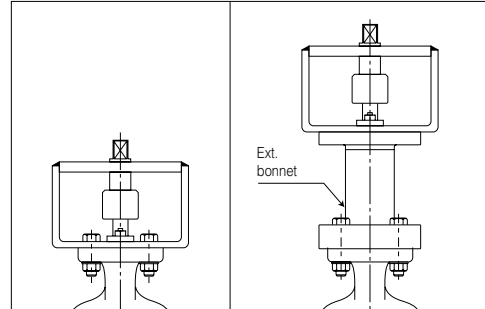
Nominal size		Dimension (mm)												Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	A	P	F	K		
80	3	89	127	48	22	95	297	T ₁₀	250	202	100	85	54	4 I-0	17.6
100	4	112	156	54	24	110	320	T ₁₀	265	252	138	126	65	4 I-1	21
125	5	137	185	56	23	139	335	T ₁₀	298	310	167	154	85	4 I-2	30
150	6	163	216	57	23.5	164	385	T ₁₀	373	310	167	154	85	4 I-2	37.5
200	8	213	269	64	27	190	415	T ₁₀	373	310	167	154	85	4 I-2.5	47
250	10	263	330	71	31	236	503	T ₁₀	420	388	223	246	136	4 I-3	79
300	12	315	381	81	35	246	530	T ₁₀	420	388	223	246	136	4 I-3	88
350	14	350	416	92	39.5	308	560	B	423	388	223	246	136	4 I-4	138

■302A-4 I



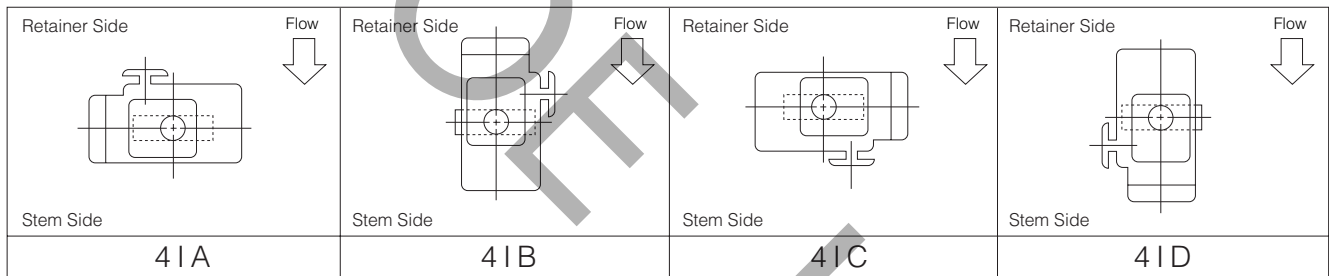
■302A-4 I

Actuator Mounting Finish by Temperature



Temp.range	-29 to less than 400 degrees C	400 to 600 degrees C
Body	80mm to 300mm	SCS14A SCPH2
	350mm to 400mm	SCS13A SCPH2
		SCS14A
		SCS13A

■4I Installation Direction



Tom Disco[®] 302A (Wafer) / 303Q (Lugged)

Three Phase Motor Actuator Type 302A-4L (250mm to 600mm)

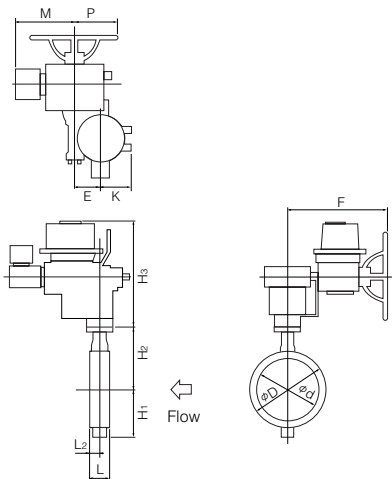
■ -29 to less than 400 degrees C

Nominal size		Dimension (mm)													Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	E	K	F	M	P		
250	10	263	330	71	31	236	283	T ₁₀	547	117	164	533	357	230	LTKD-01 0.2kW/DGH-3	125
300	12	315	381	81	35	246	310	T ₁₀ , T ₂₀	547	117	164	533	357	230	LTKD-01 0.2kW/DGH-3	133
350	14	350	416	92	39.5	308	340	A, B	547	117	164	533	357	230	LTKD-01 0.2kW/DGH-3	171
								C	592	140	198	593	373	230	LTKD-02 0.4kW/DGH-4	221
400	16	400	475	102	39	348	372	A	547	117	164	533	357	230	LTKD-01 0.2kW/DGH-3	197
								B	592	140	198	593	373	230	LTKD-02 0.4kW/DGH-4	247
								C	592	140	198	593	400	230	LTKD-02 0.75kW/DGH-4	258
450	18	450	534	114	43	366	406	A	642	140	198	593	373	230	LTKD-02 0.4kW/DGH-4	308
								B, C	642	140	198	593	400	230	LTKD-02 0.75kW/DGH-4	319
500	20	500	589	127	50	405	442	A, B, C	642	140	198	593	400	230	LTKD-02 0.75kW/DGH-4	357
600	24	600	693	154	64	461	493	A	642	140	198	593	400	230	LTKD-02 0.75kW/DGH-4	460
								B, C	749	210	300	748	477	360	LTKD-05 1.5kW/DGH-5	605

■ 400 to 600 degrees C

Nominal size		Dimension (mm)													Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	L ₂	H ₁	H ₂	Category	H ₃	E	K	F	M	P		
300	12	315	381	81	35	246	530	T ₁₀	547	117	164	533	357	230	LTKD-01 0.2kW/DGH-3	146
350	14	350	416	92	39.5	308	560	B	547	117	164	533	357	230	LTKD-01 0.2kW/DGH-3	186
400	16	400	475	102	39	348	592	B	592	140	198	593	373	230	LTKD-02 0.4kW/DGH-4	263
450	18	450	534	114	43	366	626	B	642	140	198	593	400	230	LTKD-02 0.75kW/DGH-4	336
500	20	500	589	127	50	405	662	B	642	140	198	593	400	230	LTKD-02 0.75kW/DGH-4	375
600	24	600	693	154	64	461	713	B	749	210	300	748	477	360	LTKD-05 1.5kW/DGH-5	625

■ 302A-4L



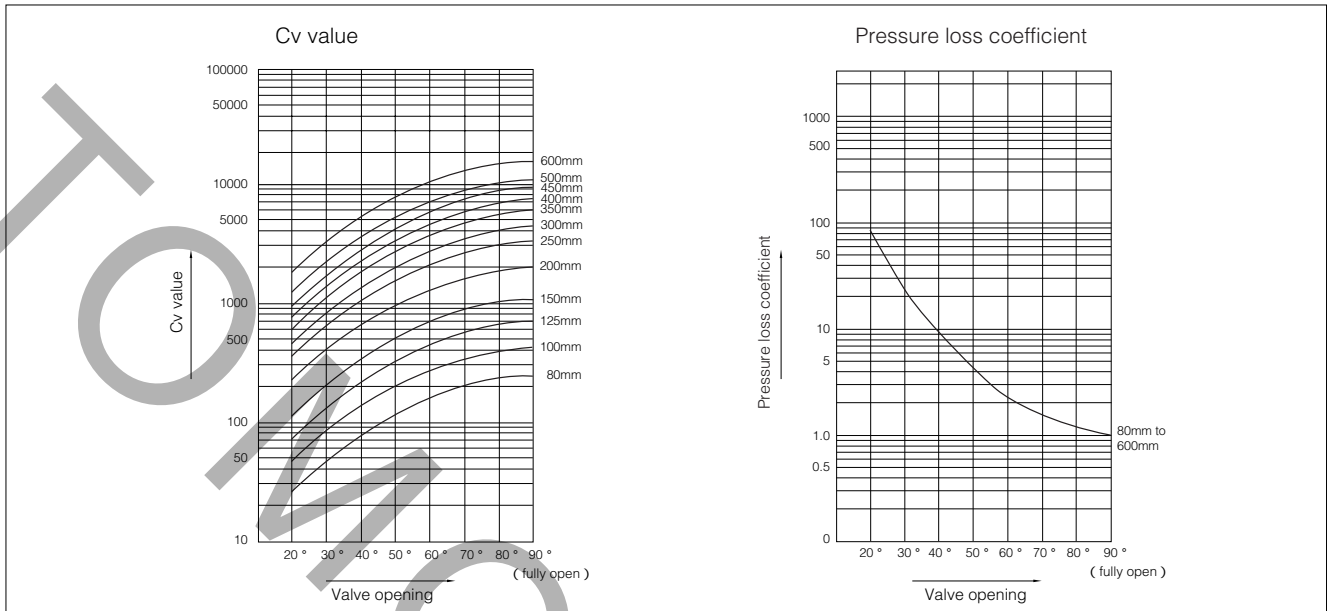
■ 302A-4L Actuator Mounting Finish by Temperature

Body	Temp. range	-29 to less than 400 degrees C	400 to 600 degrees C
	250mm 300mm		SCS14A SCPH2
350mm to 600mm		SCS13A SCPH2	SCS13A

■ 4L Installation Direction

<p>Retainer Side</p> <p>Stem Side</p> <p>4 LA</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>4 LB</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>4 LC</p>	<p>Retainer Side</p> <p>Stem Side</p> <p>4 LD</p>
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302A Cv value/pressure loss coefficient



302A Cv value

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
80	3	29	52	85	122	162	207	243	252
100	4	49	88	144	207	279	351	414	432
125	5	77	140	230	333	441	549	648	684
150	6	126	225	369	531	720	900	1080	1116
200	8	234	423	693	990	1350	1710	1980	2070
250	10	390	703	1148	1648	2240	2857	3300	3443
300	12	492	888	1454	2081	2838	3612	4172	4354
350	14	648	1170	1915	2741	3739	4758	5496	5736
400	16	829	1496	2449	3505	4780	6084	7027	7334
450	18	1041	1879	3076	4403	6004	7642	8827	9212
500	20	1323	2387	3909	5595	7630	9710	11216	11705
600	24	1929	3481	5700	8159	11126	14161	16356	17070

302A Pressure loss coefficient

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
80	3	95	29	11	5	3	2	1	1
100	4	98	30	11	5	3	2	1	1
125	5	93	28	10	5	3	2	1	1
150	6	70	22	8	4	2	1	1	1
200	8	62	19	7	3	2	1	1	1
250	10	54	17	6	3	2	1	1	1
300	12	70	21	8	4	2	1	1	1
350	14	68	21	8	4	2	1	1	1
400	16	73	22	8	4	2	1	1	1
450	18	75	23	9	4	2	1	1	1
500	20	72	22	8	4	2	1	1	1
600	24	70	22	8	4	2	1	1	1

Tom Disco® 302A(Wafer)/303Q (Lugged)

302A Applicable flange standard

Nominal size		JIS				ANSI/API/JPI	BS4504		DIN		BS10
mm	inch	5K	10K	16K	20K	150Lb	PN10	PN16	NP10	NP16	Table E
80	3	×	D	D	D		D	D	D	D	×
100	4	×	D	D	D	D	D	D	D	D	×
125	5	×	D	D	D	D	D	D	D	D	×
150	6	×	D	D	D	D	D	D	D	D	×
200	8	×	D	D	D	D	D	D	D	D	×
250	10	×	D	D	D	D	D	D	D	D	×
300	12	×	D	D	D	D	D	D	D	D	×
350	14	D	D	D	D	D	D	D	D	D	D
400	16	D	D	D	D	D	D	D	D	D	D
450	18	D	T	T	T	D	T	T	T	T	D
500	20	T	T	T	T	T	T	T	T	T	T
600	24	T	T	T	T	T	T	T	T	T	T

: Can be used without flange drilling.
 D : With flange drilling
 T : With flange tapping
 x : Not applicable

302A Applicable Pipe List in Case of **A**

Nominal size		SGP		Sch20		Sch40		Sch60		Sch80		Sch10S		Sch20S		Minimum internal diameters of piping (mm)
mm	inch	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	
80	3	○	○	○	○	○	○	○	○	○	○	○	○	○	○	72.5
100	4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	93.8
125	5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	119.4
150	6	○	○	○	○	○	○	○	×	○	×	○	○	○	○	147.5
200	8	○	○	○	○	○	○	○	×	○	×	○	○	○	○	197.5
250	10	○	○	○	○	○	○	○	×	○	×	○	○	○	○	248.1
300	12	○	○	○	○	○	○	○	×	×	×	○	○	○	○	297.6
350	14	○	○	○	○	○	○	○	×	×	×	—	—	—	—	330.0
400	16	○	○	○	○	○	○	○	×	○	×	—	—	—	—	377.0
450	18	○	○	○	○	○	○	○	×	○	×	—	—	—	—	424.0
500	20	○	○	○	○	○	○	○	×	○	×	—	—	—	—	470.0
600	24	—	—	○	○	○	○	○	×	×	×	—	—	—	—	564.0

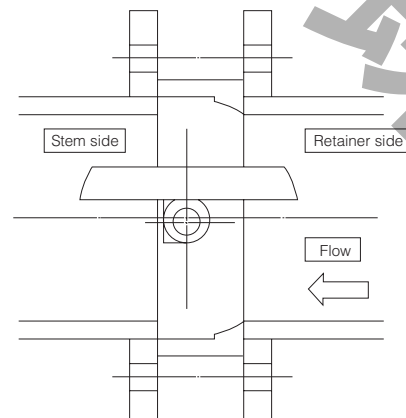
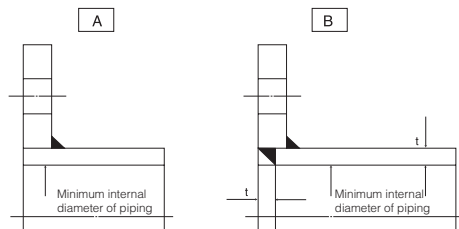
302A Applicable Pipe List in Case of **B**

Nominal size		SGP		Sch20		Sch40		Sch60		Sch80		Sch10S		Sch20S	
mm	inch	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)	Retainer (up stream)	Stem Side (down stream)
80	3	○	○	○	○	○	○	○	○	○	○	○	○	○	○
100	4	○	○	○	○	○	○	○	○	○	○	○	○	○	○
125	5	○	○	○	○	○	○	○	○	○	○	○	○	○	○
150	6	○	○	○	○	○	○	○	○	○	○	○	○	○	○
200	8	○	○	○	○	○	○	○	×	○	×	○	○	○	○
250	10	○	○	○	○	○	○	○	×	○	×	○	○	○	○
300	12	○	○	○	○	○	○	○	×	○	×	○	○	○	○
350	14	○	○	○	○	○	○	○	×	○	×	—	—	—	—
400	16	○	○	○	○	○	○	○	×	○	×	—	—	—	—
450	18	○	○	○	○	○	○	○	×	○	×	—	—	—	—
500	20	○	○	○	○	○	○	○	×	○	×	—	—	—	—
600	24	—	—	○	○	○	○	○	×	○	×	—	—	—	—

Remark 1: ○=Applicable X=Not applicable

Remark 2: The clearance between the disc and the pipe is based on API 609 and MSS SP-67.
80mm to 150mm: 1.5mm; 200mm to 500mm: 3.0mm, and 600mm: 6.4mm

Remark 3: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.
In cases where there is an "X" in the chart above or you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



Tom Disco® 302A (Wafer) / 303Q (Lugged)

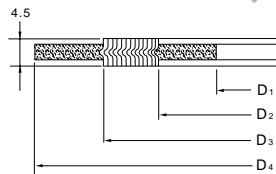
302A Piping gasket

In case of sheet gasket Any standard can be used.
 In case of spiral gasket
 For API, JPI, ANSI flange Any standard gaskets with inner/outer ring can be used.
 For JIS flange Use special spiral gasket shown below.

Special spiral gasket for JIS flange size

Nominal size		JIS flange					
		5K, 10K, 16K, 20K			5K	10K	16K, 20K
mm	inch	D ₁	D ₂	D ₃	D ₄	D ₄	D ₄
80	3	89	97	120	x	134	140
100	4	115	124	145	x	159	165
125	5	140	151	177	x	190	202
150	6	166	178	205	x	220	237
200	8	217	227	256	x	270	282
250	10	268	278	315	x	332	354
300	12	319	331	362	x	377	404
350	14	356	369	399	412	422	450
400	16	406	420	457	472	484	508
450	18	458	472	517	532	539	573
500	20	508	532	567	582	594	628
600	24	610	626	672	689	700	734

Remark; x: Not applicable



Applicable standard for spiral gasket

Nominal size		Tomoe special			Standard gasket		
		JIS 10K	JIS 16K JIS 20K	ANSI 125/150Lb	JIS 10K	JIS 16K JIS 20K	ANSI 125/150Lb
mm	inch						
80	3				x	x	
100	4				x	x	
125	5				x	x	
150	6				x	x	
200	8				x	x	
250	10				x	x	
300	12				x	x	
350	14				x	x	
400	16				x	x	
450	18				x	x	
500	20				x	x	
600	24				x	x	

Remark 1: : Applicable, x: Not applicable

Remark 2: In case a minute leakage of gas (less than 100PPm) becomes a problem, please inquire of our business charge.

302A Applicable standard for standard piping gasket

Nominal size		Max. allowable inside diameter (D)	Joint sheet or RPTFE solid gasket (t 2mm)					PTFE mold type gasket VALQUA or NICHIASU				
			JIS 5K	JIS 10K	JIS 16K JIS 20K	ANSI 125/150Lb	JPI 150Lb	JIS 5K	JIS 10K	JIS 16K JIS 20K	ANSI 125/150Lb	JPI 150Lb
mm	inch											
80	3	97	x					x				
100	4	124	x					x				
125	5	151	x					x				
150	6	178	x					x				
200	8	227	x					x				
250	10	282	x					x				
300	12	331	x					x				
350	14	362										
400	16	414										
450	18	468										
500	20	518										
600	24	619										

Remark; : Applicable, x: Not applicable

302A Piping Bolts and Nuts Sizes

Nominal size		JIS5K		JIS10K		JIS16K	
mm	inch	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts
80	3	—	—	8-M16×145	—	8-M20×170	—
100	4	—	—	8-M16×145	—	8-M20×170	—
125	5	—	—	8-M20×170	—	8-M22×190	—
150	6	—	—	8-M20×170	—	12-M22×190	—
200	8	—	—	12-M20×170	—	12-M22×190	—
250	10	—	—	12-M22×190	—	12-M24×210	—
300	12	—	—	16-M22×190	—	16-M24×225	—
350	14	12-M22×210	—	16-M22×210	—	16-M30(P3)×245	—
400	16	16-M22×220	—	16-M24×235	—	16-M30(P3)×265	—
450	18	16-M22×230	※ 1	16-M24×250	4-M24×84×60	16-M30(P3)×280	4-M30(P3)× 95×65
					4-M24×58×50		4-M30(P3)× 73×50
500	20	16-M22×245	4-M22×80×50	16-M24×260	4-M24×90×60	16-M30(P3)×300	4-M30(P3)×105×65
			4-M22×60×50		4-M24×70×60		4-M30(P3)× 81×50
600	24	16-M24×280	4-M24×84×60	20-M30(P3)×300	4-M30(P3)×81×50	20-M36(P3)×345	4-M36(P3)×100×60
			4-M24×65×50		4-M30(P3)×65×50		4-M36(P3)× 82×50

Nominal size		JIS20K		ANSI 150Lb, API/JPI 150Lb	
mm	inch	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts
80	3	8-M20×170	—	4-U5/8-11UNC×155	—
100	4	8-M20×170	—	8-U5/8-11UNC×155	—
125	5	8-M22×190	—	8-U3/4-10UNC×175	—
150	6	12-M22×190	—	8-U3/4-10UNC×175	—
200	8	12-M22×190	—	8-U3/4-10UNC×205	—
250	10	12-M24×210	—	12-U7/8- 9UNC×215	—
300	12	16-M24×225	—	12-U7/8- 9UNC×215	—
350	14	16-M30(P3)×260	—	12-U1 - 8UNC×240	—
400	16	16-M30(P3)×280	—	16-U1 - 8UNC×255	—
450	18	16-M30(P3)×300	4-M30(P3)×105×65	16-U1 1/8- 8UN×280	—
			4-M30(P3)× 81×50		
500	20	16-M30(P3)×315	4-M30(P3)×110×60	16-U1 1/8- 8UN×295	4-U1 1/8- 8UN×105×50
			4-M30(P3)× 90×65		4-U1 1/8- 8UN× 80×50
600	24	20-M36(P3)×360	4-M36(P3)×108×60	16-U1 1/4- 8UN×340	4-U1 1/4- 8UN×100×50
			4-M36(P3)× 90×50		4-U1 1/4- 8UN× 90×50

※1 Flange tapping is applicable. Please consult us for the further information.

Remark: Use SNB 7/S45C (A193 B7/A, 194 2H) SUS304/SUS304

For long bolt, use full thread bolt.

For hexagon nut, use heavy nut.

A metric screw should have 3 pitches if its nominal diameter exceeds M30.

A unified screw should have 8 threads per inch if its nominal diameter exceeds 1 inch.

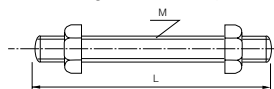
Hexagon bolts (set bolts) are indicated with the retainer side on the up side and the stem side on down side.

Examples

Long bolts: 12 - M22 × 185
N M L

Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts)
N M L S

Long bolts and nuts (full thread)



Setting bolts (Hexagon bolts)

