DISCOVANNE 337Y/336Y

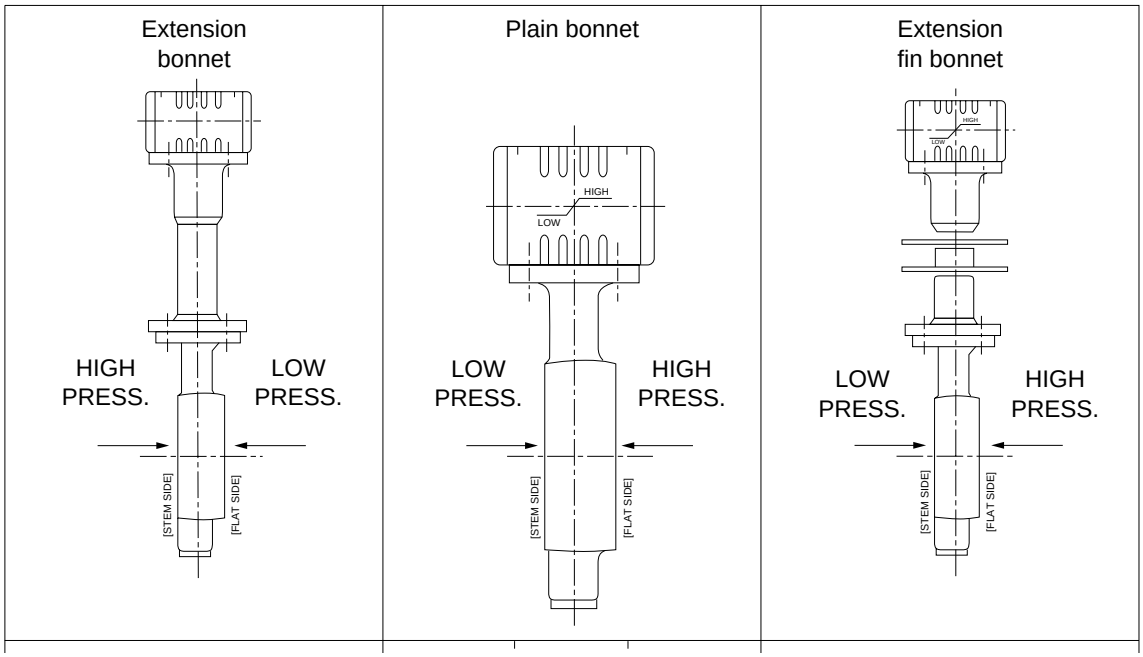
Standard specification for 337Y/336Y

Model			337Y		336Y
Size			50 to 300 mm		350 to 600 mm
Connection			Wafer type		
Pressure rating			50 to 200 mm	250 to 300 mm	350 to 600 mm
			ANSI 300Lb	JIS 20K	JIS 10K
Applicable flange standard			JIS 10K/16K/20K, ANSI 150Lb/300Lb		JIS 5K/10K, ANSI 150Lb *1
Max. working pressure			4.90 MPa (50 kgf/cm^{2}G)	2.94 MPa (30 kgf/cm^{2}G)	0.98 MPa (10 kgf/cm^{2}G)
Flow direction			Bi-directional (Flow to disc side is recommended)		Flow to disc side *2
Seat leakage rate			ISO 5208 Leak rate C		
Working temperature range			*6 Carbon steel body: –20 to 400°C, Stainless steel body: –100 to 600°C		
Standard materials ( ) shows semi-standard	Body	Size	50 to 100 mm	125 to 300 mm	350 to 600 mm
		Carbon steel	SF 490A / A668	SCPH$_2$ / WCB	SCPH$_2$ / WCB
		Stainless steel	SUS F 316 / A182	SCS 14 / CF8M	SCS 13 (SCS 14) / CF8 (CF8M)
	Disc *3 *4	Carbon steel body	SUS F 410		SCS 13 / CF8
		Stainless steel body	SUS F 316		SCS 13 (SCS 14) / CF8 (CF8M)
	Stem *5	Carbon steel body	SUS 431 (SUS 630 *5)		
		Stainless steel body	SUS 329 J1 (SUS 630 *5)		
	Seat ring		SUS 316L		
Coating			Silicon resin coating (Grey N7). Heat resistant silver coating for over 200°C application. No coating on stainless steel body.		

*1 JIS 20K/ANSI 300Lb type (337Y) for 350 to 600 mm is also available on request.
*2 Consult Tomoe in case of flow to stem side.
*3 SUS F 316 with stellite #6 welding on edge of disc shall be used for 50 to 300 mm in case of 350 to 600°C application.
*4 SCS 13 (SCS 14) with stellite #6 welding on edge of disc shall be used for 350 to 600 mm in case of 350 to 600°C application.
*5 SUS 630 shall be used in case of 2.45 MPa (25 kgf/cm^{2}G) and over or 50 to 125 mm at 350°C and over or 150 to 600 mm at 400°C and over.
* When use spiral gaskets, please refer to the chart of recommended gaskets.
* Please refer to (Pressure – Temperature chart) if leakage rate at flow to disc side is necessary.
* The face to face dimensions are manufacturer's standard.

337Y Bonnet type

Size: 50 to 125 ㎜

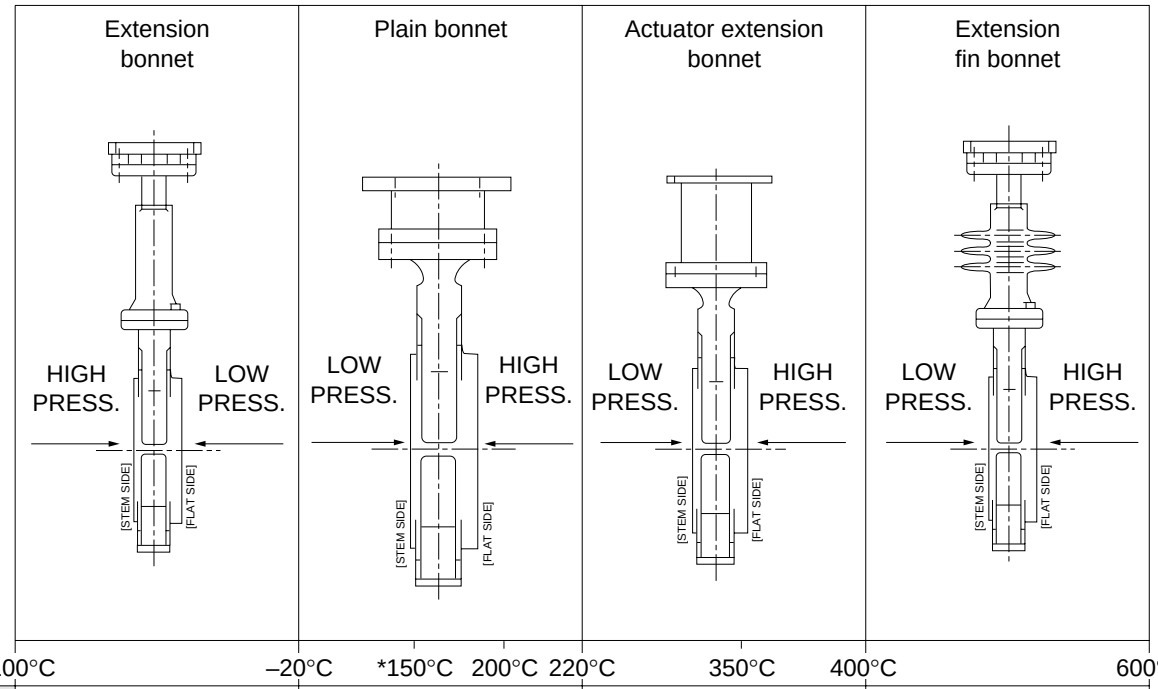


Body	SUS F 316 (SCS 14)	SF 490A [$SCPH_2$] ／ SUS F 316 [SCS 14]	SUS F 316 [SCS 14]
Disc	SUS F 316	SUS F 410 ／ SUS F 316 * (SUS F 316)	SUS F 316 + Stellite #6
Seat ring	SUS 316L	→	→
Stem	SUS 630 (up to –100°C)	SUS 431 [SUS 630] ／ SUS 329 J1 SUS 630 [2.45 MPa over]	SUS 630
Bearing	TFE + SUS 316L	199°C or below : TFE + SUS 316 200°C over : Carbon (IG11)	Carbon (IG310)

[ ] = 125 ㎜

337Y Bonnet type

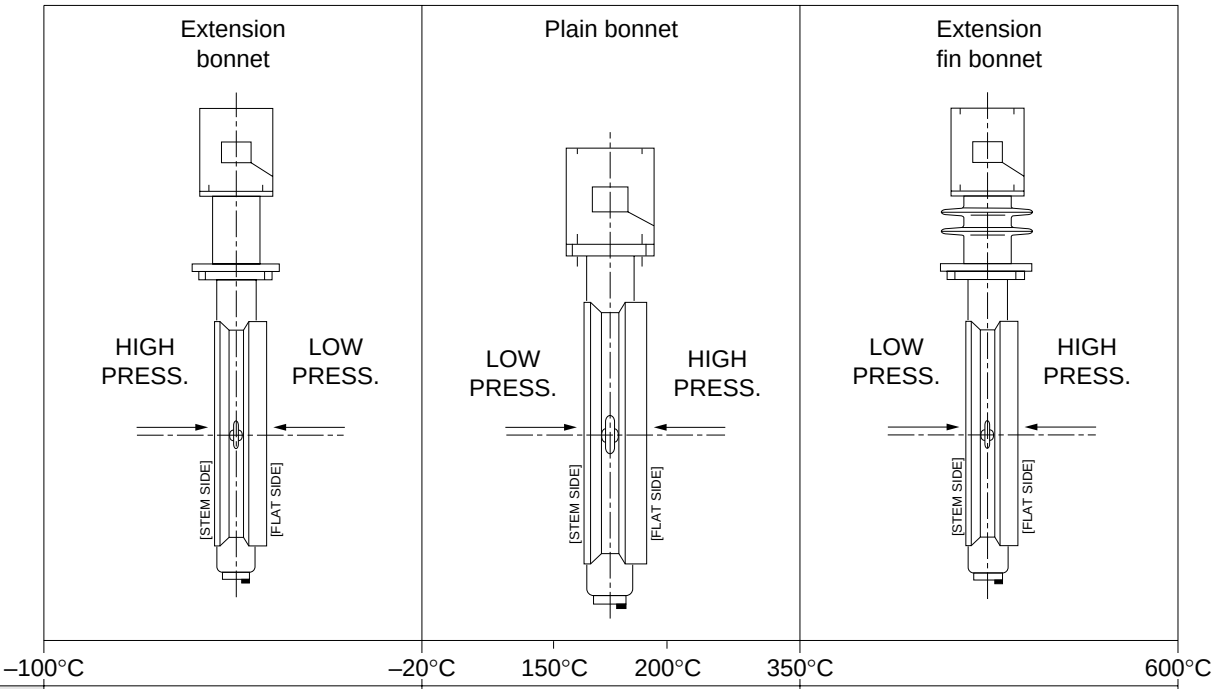
Size: 150 to 300 ㎜



Body	SCS 14	$SCPH_2$ ／ SCS 14	$SCPH_2$ ／ SCS 14	SCS 14
Disc	SUS F 316	SUS F 410 ／ SUS F 316 * (SUS F 316)	→	SUS F 316 + Stellite (350°C over)
Seat ring	SUS 316L	→	→	→
Stem	SUS 630 (up to –100°C)	SUS 431 ／ SUS 329 J1 (SUS 630) SUS 630	→	SUS 630
Bearing	Carbon (IG11)	Carbon (IG11)	→	Carbon (IG310)

336Y Bonnet type

Size: 350 to 600 mm



Body	SCS 13 (SCS 14)	$SCPH_2$ ⁄ SCS 13 (SCS 14)	SCS 13 (SCS 14)
Disc	SCS 13 (SCS 14)	SCS 13 (SCS 14)	SCS 13 (SCS 14) + Stellite #6
Stem	SUS 630	SUS 431 ⁄ SUS 329 J1 SUS 630	SUS 630
Bearing	TFE + SUS 316L (Carbon)	199°C or below: TFE + SUS 316 200°C over: Carbon (IG11)	Carbon (IG310)

Actuator selection chart

337Y-3I · 3Q · 3R ⟨1 Standard Flow to disc side ⫞←⟩

Flow temperature –20°C to 220°C

(Unit: MPa)

Valve nominal size / ΔP		0 to 0.98		0.98 to 1.96		1.96 to 2.94		2.94 to 4.9	
mm	inch	Double Acting	Single Acting	Double Acting	Single Acting	Double Acting	Single Acting	Double Acting	Single Acting
50	2	Type 2	Type 3	Type 2	Type 3	Type 2	Type 3	Type 2	Type 3
65	2 1/2				Type 4		Type 4	Type 3	Type 4
80	3	Type 3	Type 4	Type 3		Type 3			
100	4							Type 4	
125	5					Type 4			
150	6	Type 4		Type 4					
200	8								
250	10								
300	12								

337Y-3I · 3Q · 3R 〈2 Standard　Flow to disc side

Flow temperature 220°C and or over

(Unit: MPa)

Valve nominal size / ΔP		0 to 0.98		0.98 to 1.96		1.96 to 2.94		2.94 to 4.9	
mm	inch	Double Acting	Single Acting	Double Acting	Single Acting	Double Acting	Single Acting	Double Acting	Single Acting
50	2	Type 2	Type 3	Type 2	Type 3	Type 2	Type 3	Type 2	Type 3
65	2 1/2				Type 4	Type 3	Type 4	Type 3	Type 4
80	3	Type 3	Type 4	Type 3					
100	4							Type 4	
125	5			Type 4		Type 4			
150	6	Type 4							
200	8								
250	10								
300	12								

337Y-3I · 3Q · 3R 〈3 Standard　Flow to stem side →⇦〉

(Unit: MPa)

Valve nominal size		ΔP 0 to 0.98		0.98 to 1.96		1.96 to 2.94		2.94 to 4.9	
mm	inch	Double Acting	Single Acting	Double Acting	Single Acting	Double Acting	Single Acting	Double Acting	Single Acting
50	2	Type 2	Type 3	Type 2	Type 3	Type 2	Type 3	Type 2	Type 4
65	2 1/2				Type 4	Type 3	Type 4	Type 3	*1
80	3	Type 3	Type 4	Type 3				*2	
100	4					Type 4		Type 4	
125	5			Type 4					
150	6	Type 4							
200	8								
250	10	*3							
300	12								

*1 ΔP: 2.94 to 3.92 MPa ... Type 4　ΔP: over 3.92 MPa ... N.A
*2 ΔP: 2.94 to 3.92 MPa ... Type 3　ΔP: 3.92 to 4.90 MPa ... Type 4
*3 ΔP: 0 to 0.49 MPa ... Type 4　ΔP: 0.49 to 0.98 MPa ... N.A

337Y Selection chart for double acting pneumatic cylinder 〈Flow to disc side ⇦←〉

Flow temperature –20°C to 220°C

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Z-08									
65	2 1/2										
80	3	Z-11									
100	4										
125	5										
150	6	Z-13									
200	8							TGA-125			
250	10			TGA-125							
300	12					TGA-140					

(Note) Based on 0.39 MPa air supply.

337Y Selection chart for double acting pneumatic cylinder 〈Flow to disc side ⇦←〉

Flow temperature 220°C and or over

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Z-08									
65	2 1/2					Z-08					
80	3	Z-11									
100	4					Z-11					
125	5	Z-13									
150	6					Z-13					
200	8	TGA-125									
250	10					TGA-125					
300	12	TGA-140									

(Note) Based on 0.39 MPa air supply.

337Y Selection chart for single acting pneumatic cylinder 〈Flow to disc side ⫞←〉

Flow temperature –20°C to 220°C

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Z-11S									
65	2 1/2	Z-12S									
80	3	Z-12S		Z-13S							
100	4	Z-12S		Z-13S				TGA-S-125 / AW-13S			
125	5	Z-13S		TGA-S-125 / AW-13S				AW-17S			
150	6	TGA-S-125 / AW-13S		AW-17S							
200	8	TGA-S-125 / AW-17S				TGA-S-140 / AW-17S		TGA-S-160 / AW-20S			
250	10	TGA-S-125 / AW-17S		TGA-S-140 / AW-17S		TGA-S-160 / AW-20S					
300	12	TGA-S-160 / AW-20S		TGA-S-180 / AW-20S		TGA-S-200 / AW-28S					

(Note) Based on 0.39 MPa air supply.

337Y Selection chart for single acting pneumatic cylinder 〈Flow to disc side ⇦←〉

Flow temperature 220°C and or over

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Z-11S									
65	2 1/2	Z-13S				Z-12S		Z-13S			
80	3	Z-13S						TGA-S-125			
								AW-13S			
100	4					TGA-S-125					
						AW-13S		AW-17S			
125	5	TGA-S-125									
		AW-13S		AW-17S							
150	6	TGA-S-125						TGA-S-140			
		AW-17S									
200	8	TGA-S-125		TGA-S-140		TGA-S-160					
		AW-17S				AW-20S					
250	10	TGA-S-140		TGA-S-160							
		AW-17S		AW-20S							
300	12	TGA-S-160		TGA-S-200		TGA-S-220					
		AW-20S		AW-28S							

(Note) Based on 0.39 MPa air supply.

337Y Selection chart for 4l electric motor actuator 〈Flow to disc side ⇦〉

Flow temperature –20°C to 220°C

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Type 1									
65	2 1/2										
80	3	Type 2									
100	4										
125	5										
150	6	Type 3									
200	8										
250	10	×									
300	12		×								

(Note) × Shows not applicable.

337Y Selection chart for 4l electric motor actuator 〈Flow to disc side ⇦←〉

Flow temperature 220°C to 600°C

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Type 1									
65	2 1/2										
80	3	Type 2									
100	4										
125	5	Type 3									
150	6										
200	8							×	×	×	×
250	10										
300	12			×	×	×	×	×	×	×	×

(Note) × Shows not applicable.

337Y Selection chart for 4E electric motor actuator 〈Flow to disc side ⇦←〉

Flow temperature –20°C to 220°C

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	SRE-010									
65	2 1/2										
80	3	SRE-020									
100	4										
125	5										
150	6	SRE-060									
200	8										
250	10										
300	12										

(Note) × Shows not applicable.

337Y Selection chart for 4E electric motor actuator 〈Flow to disc side ⇥←〉

Flow temperature 220°C and or over

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	SRE-010									
65	2 1/2										
80	3	SRE-020									
100	4										
125	5	SRE-060									
150	6										
200	8						×	×	×	×	×
250	10					×	×	×	×	×	×
300	12				×	×	×	×	×	×	×

(Note) × Shows not applicable.

337Y Selection chart for 4L electric motor actuator with reduction gear 〈Flow to disc side ⇦←〉

<table>
<tr><th rowspan="2">Valve nominal size
ΔP (MPa)</th><th>mm</th><th>inch</th><th>0
to
0.48</th><th>0.49
to
0.97</th><th>0.98
to
1.46</th><th>1.47
to
1.95</th><th>1.96
to
2.44</th><th>2.45
to
2.93</th><th>2.94
to
3.42</th><th>3.43
to
3.91</th><th>3.92
to
4.40</th><th>4.41
to
4.8</th></tr>
<tr><td>50</td><td>2</td><td colspan="10" rowspan="4">DGH-1+LTRH-01 -0.1KW (50/60 Hz=31/32 sec)</td></tr>
<tr><td>65</td><td>2 1/2</td></tr>
<tr><td>80</td><td>3</td></tr>
<tr><td>100</td><td>4</td></tr>
<tr><td>125</td><td>5</td><td colspan="10" rowspan="2">DGH-2+LTRH-01 -0.2KW (50/60 Hz=43/44 sec)</td></tr>
<tr><td>150</td><td>6</td></tr>
<tr><td>200</td><td>8</td><td colspan="7">DGH-2+LTRH-01 -0.2KW
(50/60 Hz=52/54 sec)</td><td colspan="3">DGH-3+LTRH-01 -0.2KW
(50/60 Hz=57/59 sec)</td></tr>
<tr><td>250</td><td>10</td><td colspan="6" rowspan="2">DGH-3+LTRH-01 -0.2KW
(50/60 Hz=57/59 sec)</td><td colspan="4" rowspan="2"></td></tr>
<tr><td>300</td><td>12</td><td>DGH-4+
LTKD-02
-0.4KW
(50/60 Hz=
61/57 sec)</td></tr>
</table>

(Note) × Shows not applicable.

337Y Selection chart for Z & TGA type double acting pneumatic cylinders 〈Flow to stem side →|〉

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Z-08									
65	2 1/2										
80	3	Z-11									
100	4										
125	5	Z-13									
150	6							TGA-12			
200	8						TGA-14			TGA-16	
250	10		TGA-12		TGA-14			TGA-16		TGA-18	
300	12			TGA-14	TGA-16	TGA-18		×			

(Note) Based on 0.39 MPa air supply.
× Shows not applicable.

337Y Selection chart for Z & AW-S type single acting pneumatic cylinders 〈Flow to stem side →⫞〉

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	Z-11S				Z-12S					
65	2 1/2										
80	3	Z-12S			AW-13S						
100	4										
125	5	AW-13S			AW-17S						
150	6										
200	8				AW-20S						
250	10					AW-28S					
300	12							×	×	×	×

(Note) Based on 0.39 MPa air supply.
× Shows not applicable.

337Y Selection chart for electric motor actuators, 4E & 4L 〈Flow to stem side →〉

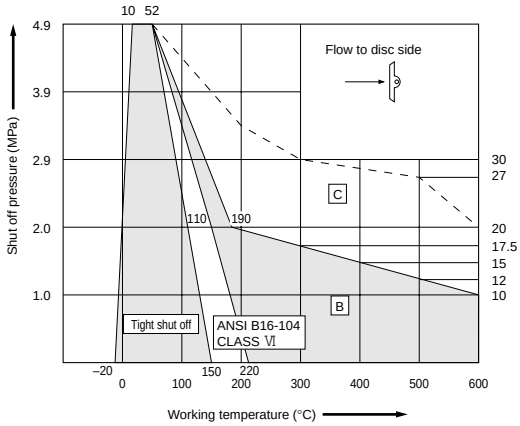
(SRE type & LTKD type)

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) 0 to 0.48	0.49 to 0.97	0.98 to 1.46	1.47 to 1.95	1.96 to 2.44	2.45 to 2.93	2.94 to 3.42	3.43 to 3.91	3.92 to 4.40	4.41 to 4.8
50	2	SRE-010 (18/15 sec)									
65	2 1/2	SRE-020 (30/25 sec)									
80	3										
100	4										
125	5	SRE-060 (36/30 sec)									
150	6							A			
200	8		A			B		C			
250	10			B		C		LTKD-01 (0.4KW) (BRF-4)			
300	12	A									

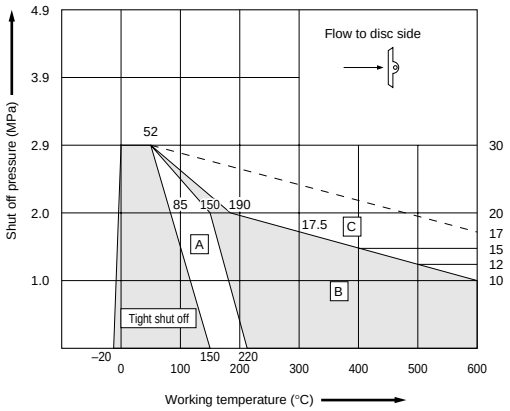
A: LTKD-01 (0.2KW) (DGH-3)
B: LTKD-01 (0.4KW) (DGH-3)
C: LTKD-01 (0.2KW) (BRF-2)
× Shows not applicable.

337Y Pressure – Temperature rating chart

50 to 200 mm



250 to 300 mm



(Remarks)
1. Leakage rate
   1-1 A area: 50 Ncm³/Min/inch
   1-2 B area: 1×10^{-4} Cv
   1-3 C area: 2×10^{-4} Cv
2. This chart only shows the performance for standard application. Special finish may be available upon request.
3. The data shows when the valve is tested before shipment from our factory.
4. The performance may depend on type of fluid.

336Y Selection chart for 3A double acting pneumatic cylinder 〈Flow to disc side〉

Flow temperature –20°C to 220°C

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) Category	← Flow to disc side 0 to 0.97
350	14	Ⅰ	TGA-125
		Ⅱ	TGA-140
		Ⅲ	TGA-160
400	16	Ⅰ	TGA-125
		Ⅱ	TGA-140
		Ⅲ	TGA-160
450	18	Ⅰ	TGA-140
		Ⅱ	TGA-160
		Ⅲ	TGA-180
500	20	Ⅰ	TGA-140
		Ⅱ	TGA-160
		Ⅲ	TGA-180
600	24	Ⅰ	TGA-160
		Ⅱ	TGA-180
		Ⅲ	TGA-180

(Note) Based on 0.39 MPa air supply.

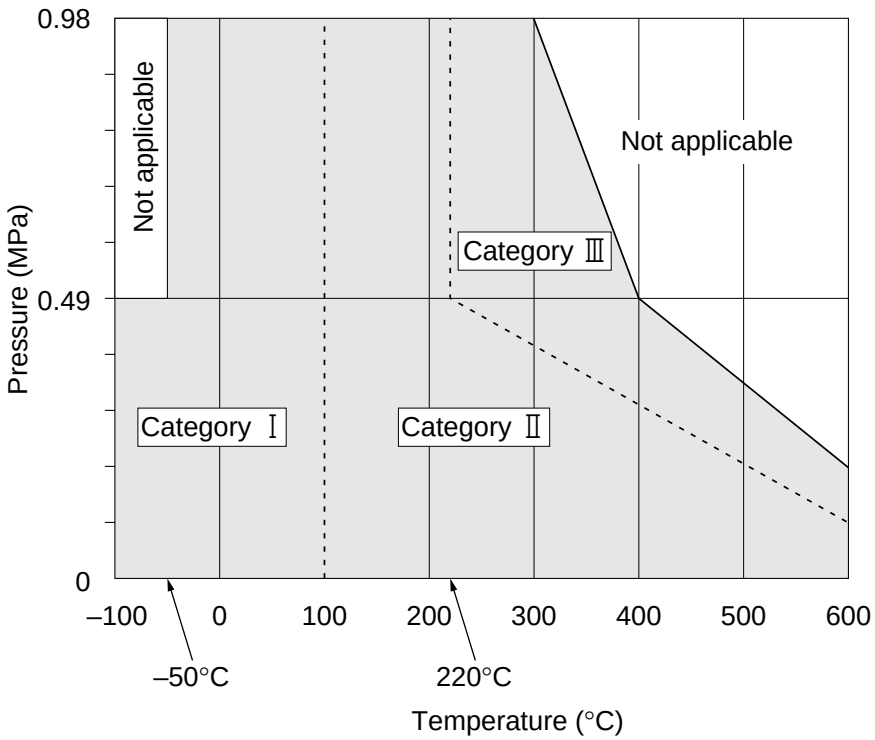
Flow temperature 220°C and or over

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) Category	← Flow to disc side 0 to 0.97
350	14	Ⅰ	TGA-125
		Ⅱ	TGA-140
		Ⅲ	TGA-160
400	16	Ⅰ	TGA-125
		Ⅱ	TGA-140
		Ⅲ	TGA-160
450	18	Ⅰ	TGA-140
		Ⅱ	TGA-160
		Ⅲ	TGA-180
500	20	Ⅰ	TGA-140
		Ⅱ	TGA-160
		Ⅲ	TGA-180
600	24	Ⅰ	TGA-160
		Ⅱ	TGA-180
		Ⅲ	TGA-180

(Note) Based on 0.39 MPa air supply.

336Y Actuator selection standard

The actuator selection shall be made in accordance with flow pressure and temperature as below.



336Y Selection chart for 3T/3S single acting pneumatic cylinder 〈Flow to disc side〉

336Y Selection chart for 4L electric motor actuator 〈Flow to disc side〉

Flow temperature –20°C to 600°C

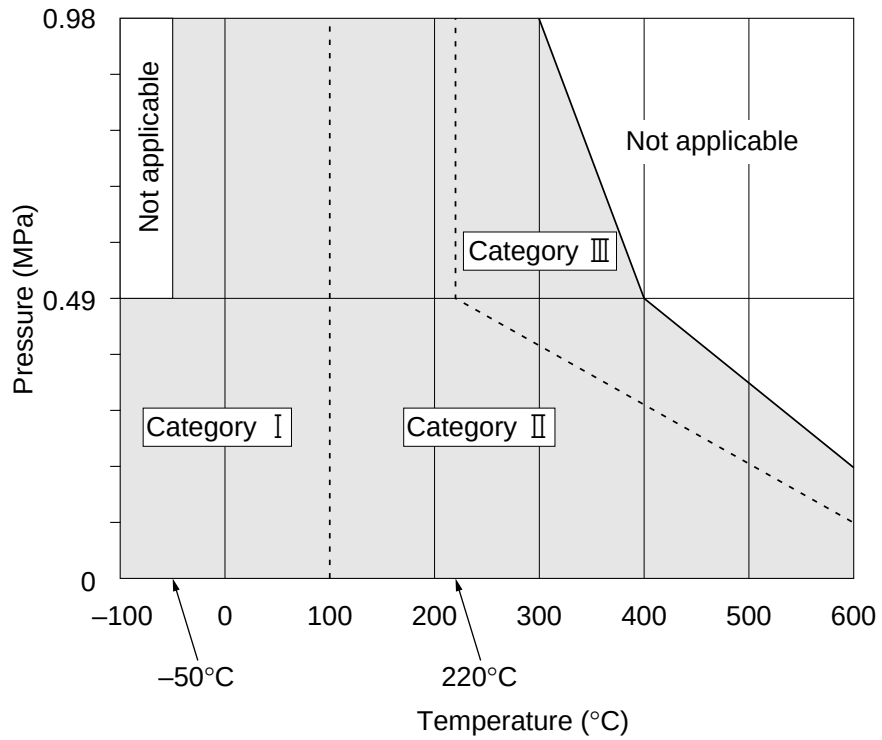
Valve nominal size mm	Valve nominal size inch	ΔP (MPa) Category	← Flow to disc side 0 to 0.97
350	14	Ⅰ	TGA-S-180 (AW-20S)
		Ⅱ	TGA-S-200 (AW-28S)
		Ⅲ	TGA-S-220 (AW-28S)
400	16	Ⅰ	TGA-S-180 (AW-20S)
		Ⅱ	TGA-S-200 (AW-28S)
		Ⅲ	TGA-S-220 (AW-28S)
450	18	Ⅰ	TGA-S-200 (AW-28S)
		Ⅱ	TGA-S-220 (AW-28S)
		Ⅲ	TGA-S-250 (AW-28S)
500	20	Ⅰ	TGA-S-200 (AW-28S)
		Ⅱ	TGA-S-220 (AW-28S)
		Ⅲ	TGA-S-250 (AW-28S)
600	24	Ⅰ	TGA-S-220 (AW-28S)
		Ⅱ	TGA-S-250 (AW-28S)
		Ⅲ	

Valve nominal size mm	Valve nominal size inch	ΔP (MPa) Category	← Flow to disc side 0 to 0.97
350	14	Ⅰ	DGH-3+LTRH-01 -0.2KW (50/60 Hz=89/97 sec)
		Ⅱ	
		Ⅲ	DGH-4+LTKD-02 -0.4KW (50/60 Hz=69/68 sec)
400	16	Ⅰ	DGH-3+LTRH-01 -0.4KW (50/60 Hz=82/79 sec)
		Ⅱ	
		Ⅲ	DGH-4+LTKD-02 -0.75KW (50/60 Hz=68/67 sec)
450	18	Ⅰ	DGH-4+LTKD-02 -0.4KW (50/60 Hz=69/68 sec)
		Ⅱ	
		Ⅲ	DGH-4+LTKD-02 -0.75KW (50/60 Hz=68/67 sec)
500	20	Ⅰ	DGH-4+LTKD-02 -0.4KW (50/60 Hz=69/68 sec)
		Ⅱ	
		Ⅲ	DGH-4+LTKD-02 -0.75KW (50/60 Hz=68/67 sec)
600	24	Ⅰ	DGH-4+LTKD-02 -0.75KW (50/60 Hz=68/67 sec)
		Ⅱ	
		Ⅲ	DGH-4+LTKD-02 -0.75KW (50/60 Hz=68/67 sec)

(Note) Based on 0.39 MPa air supply.

336Y Actuator selection standard

The actuator selection shall be made in accordance with flow pressure and temperature as below.



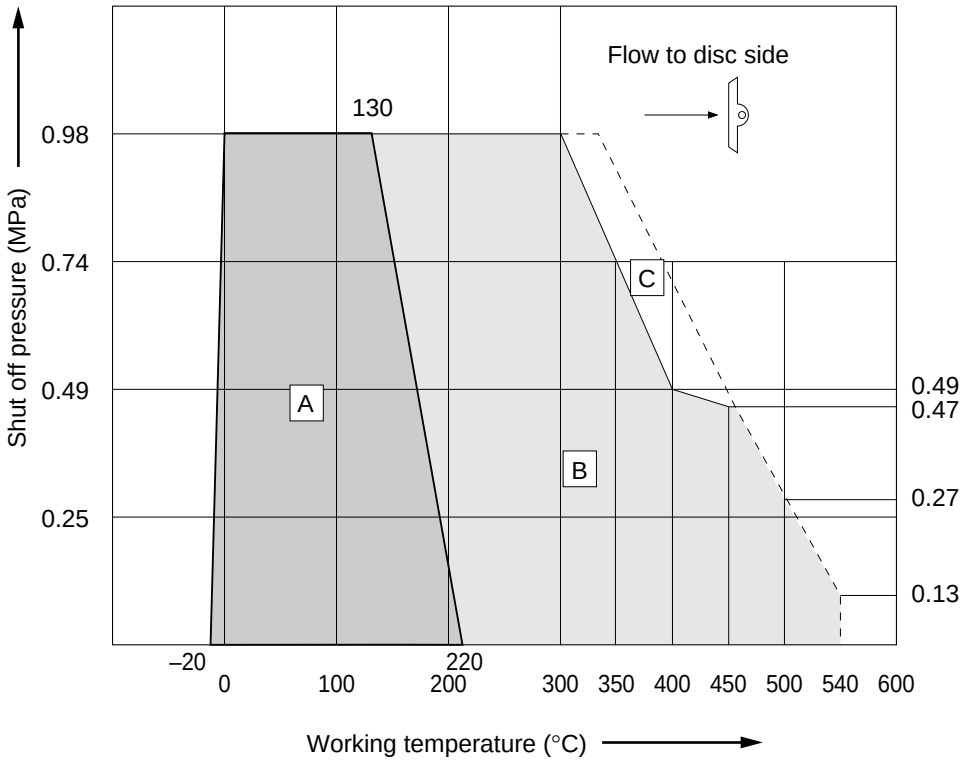
337Y/336Y Basic torque chart

(Unit: N·m)

Flow direction		← Pressure to disc side			
Valve nominal size		0 to 1.0 MPa	1.0 to 2.0 MPa	2.0 to 2.9 MPa	2.9 to 4.9 MPa
mm	inch				
50	2	31.4	31.4	44.1	49.0
65	2 1/2	49.0	49.0	58.8	76.5
80	3	78.5	88.3	88.3	107.9
100	4	78.5	107.9	107.9	147.1
125	5	107.9	137.3	171.6	235.4
150	6	166.7	225.6	225.6	274.6
200	8	196.1	274.6	353.1	509.9
250	10	284.4	490.4	490.4	—
300	12	490.4	735.5	980.7	—
350	14	705.6	—	—	—
400	16	823.2	—	—	—
450	18	980.0	—	—	—
500	20	1127.0	—	—	—
600	24	1421.0	—	—	—

336Y Pressure – Temperature rating chart

350 to 600 mm



(Remarks)

1. Leakage rate
   1-1 A area: ANSI B16.104 Class Ⅴ
   5×10^{-4} mℓ/min.
   1-2 B area: 1×10^{-4} Cv
   1-3 C area: 2×10^{-4} Cv
2. This chart only shows the performance for standard application. Special finish may be available upon request.
3. The data shows when the valve is tested before shipment from our factory.
4. The performance may depend on type of fluid.

Interchangability chart for 337Y and 338Y (Old model)

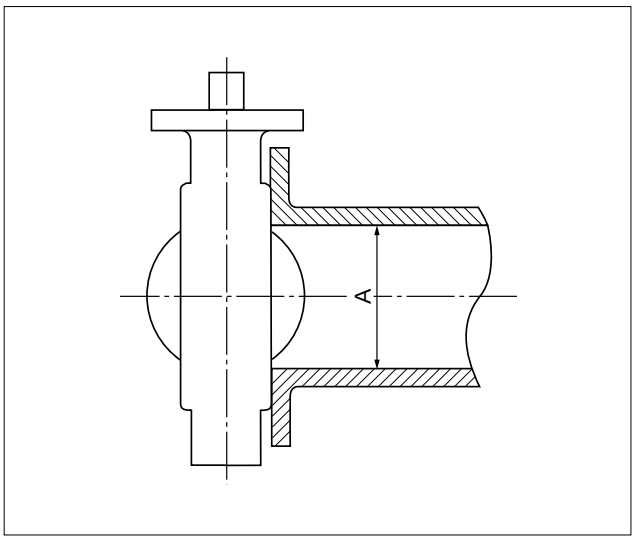
No.	Item	50 mm	65 mm	80 mm	100 mm	125 mm	150 mm	200 mm	250 mm	300 mm
1	Body	×	×	×	×	×	×	×	×	×
2	Disc	×	×	×	×	×	×	×	×	×
3	Stem	×	×	×	×	×	×	×	×	×
5	Seat ring	○	○	○	○	○	○	○	○	○
6	Outer ring	○	○	○	○	○	○	○	○	○
7	Seat retainer	×	×	×	×	×	×	×	×	×
8	Upper bearing	(Common with old 65 mm)	(Common with old 80 mm)	×	×	○	○	○	○	○
9	Lower bearing	(Common with old 65 mm)	×	×	×	×	○	○	○	○
10	Bottom plug	×	×	×	×	×				
10	Bottom cover						○	○	○	○
11	Seal ring	(Common with old 65 mm)	(Common with old 80 mm)	×	○	○	○	○	○	○
12	Gland packing	(Common with old 65 mm)	(Common with old 80 mm)	×	○	○	○	○	○	○
13	Space ring	(Common with old 65 mm)	(Common with old 80 mm)	×	○	○	○	○	○	○
14	Gland bush	×	×	×	×	×	○	○	○	○
15	Gland flange	×	×	×	○	○	○	○	○	○
16	Pin	×	×	×	×	×	×	×	×	×
17	Gland bolt	○	○	○	○	○	○	○	○	○
18	Gland nut	○	○	○	○	○	○	○	○	○
19	Set screw	×	×	×	×	×	×	×	×	×
20	Hex. nut						○	○	○	○
21	Spring washer						○	○	○	○
19	Lock ball	×	×	×	×	×	×	×	×	×

○ : Interchangable ×: Not interchangable

Minimum internal piping diameter for 337Y/336Y

(Unit: mm)

Size		Minimum diameter
mm	inch	A
50	2	49
65	2 ½	63
80	3	74
100	4	97
125	5	124
150	6	149
200	8	200
250	10	248
300	12	298
350	14	329
400	16	375
450	18	423
500	20	470
600	24	578



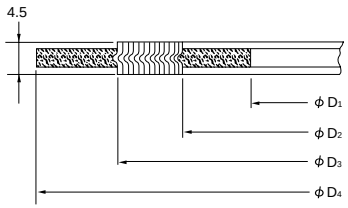
Dimensions for special spiral gasket for piping for 337Y/336Y

Size		JIS flanges					ANSI flanges				
		10K, 16K, 20K			10K	16K, 20K	150·300Lb			150Lb	300Lb
mm	inch	D_1	D_2	D_3	D_4	D_4	D_1	D_2	D_3	D_4	D_4
50	2	61	69	88	104	104	61	69	88	104	111
65	2 ½	73	81	100	124	124	73	81	100	123	129
80	3	89	97	120	134	140	89	97	120	136	148
100	4	115	124	146	159	165	115	124	146	174	180
125	5	140	151	177	190	202	140	151	177	196	215
150	6	166	178	207	220	237	166	178	207	222	250
200	8	217	227	257	270	282	217	229	257	279	307
250	10	268	282	318	332	354	268	285	318	339	362
300	12	319	331	362	377	404	319	335	362	409	422

* No socket weld flanges can be used for 50 mm and 65 mm in case of type B flange.

In case of 300°C and over use special spiral gasket designed for DiSCOVANNE listed here. Do not use metal jacketed type or other metal gaskets.

* Spiral gaskets with inner and outer ring, V#596, 6596.



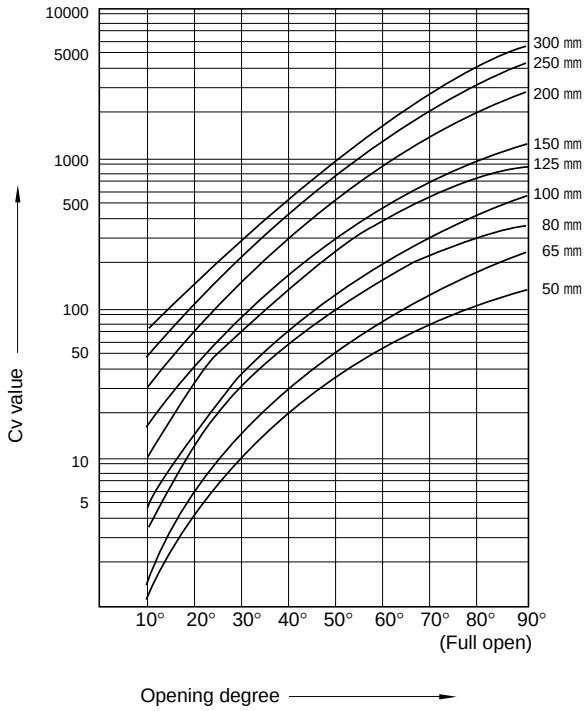
Size		JIS flanges					ANSI flanges			
		5K, 10K			5K	10K	150Lb			
mm	inch	D_1	D_2	D_3	D_4	D_4	D_1	D_2	D_3	D_4
350	14	356	369	399	412	422	356	369	399	450
400	16	406	420	457	472	484	406	420	457	514
450	18	458	472	517	532	539	458	472	517	549
500	20	508	523	567	582	594	508	523	567	606
600	24	610	626	672	689	700	610	626	672	717

DISCOVANNE 337Y/336Y

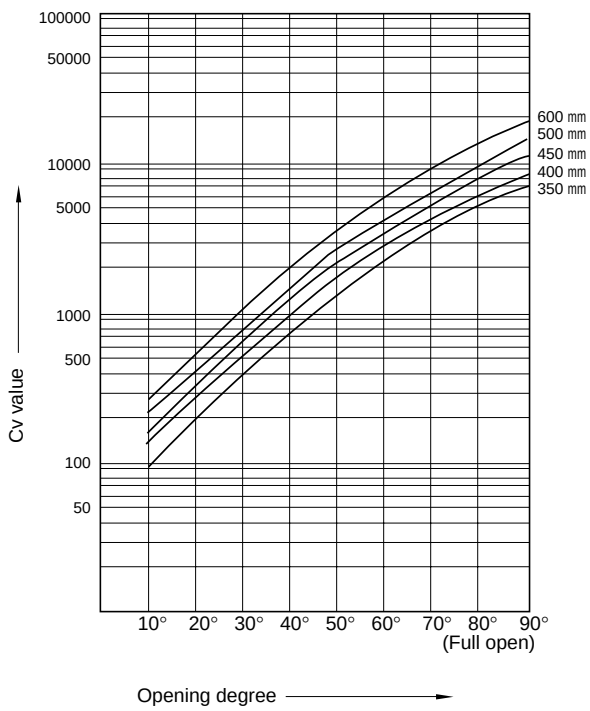
337Y/336Y Cv value

Cv value is defined as follows:
The flow rate expressed as US gal./min. at which a fresh water of 60°F flows when the pressure difference across the valve is maintained at 1 psi.

(337Y)



(336Y)



337Y/336Y Cv value chart

Size		Opening degree							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
50	2	5	10	21	37	55	85	108	127
65	2½	7	14	28	57	86	131	181	225
80	3	12	28	56	102	154	229	282	325
100	4	17	35	74	137	209	325	433	550
125	5	35	69	133	236	369	569	726	870
150	6	47	89	161	305	494	704	1043	1410
200	8	79	150	273	555	925	1406	2052	2600
250	10	125	231	401	789	1428	2083	3264	4350
300	12	168	306	528	988	1703	2625	4327	5500
350	14	204	385	745	1495	2354	3827	6003	8400
400	16	287	534	981	1931	2982	4352	6999	9400
450	18	371	684	1207	2269	3715	5541	8501	11000
500	20	469	856	1442	2592	4723	6916	10176	14500
600	24	619	1133	1900	3405	6453	9459	13439	19500

337Y/336Y Pressure loss coefficient

Size		Opening degree							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
50	2	660	165	37.4	12.0	5.45	2.28	1.41	1.02
65	2½	823	206	51.4	12.4	5.45	2.35	1.23	0.796
80	3	552	101	25.4	7.65	3.35	1.52	1.00	0.753
100	4	810	191	42.8	12.5	5.36	2.22	1.25	0.774
125	5	448	115	31.0	9.86	4.03	1.70	1.04	0.726
150	6	503	140	42.9	11.9	4.55	2.24	1.02	0.559
200	8	547	152	45.8	11.1	3.99	1.73	0.811	0.505
250	10	524	154	50.9	13.2	4.02	1.89	0.769	0.433
300	12	597	180	60.4	17.2	5.81	2.44	0.899	0.557
350	14	635	178	47.6	11.8	4.77	1.80	0.733	0.374
400	16	547	158	46.8	12.1	5.07	2.38	0.920	0.510
450	18	524	154	49.5	14.0	5.23	2.35	1.00	0.596
500	20	507	152	53.6	16.6	5.00	2.33	1.08	0.53
600	24	608	182	64.6	20.1	5.60	2.60	1.29	0.613