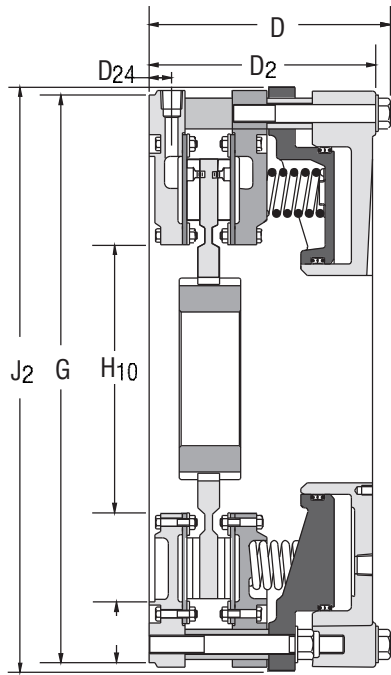
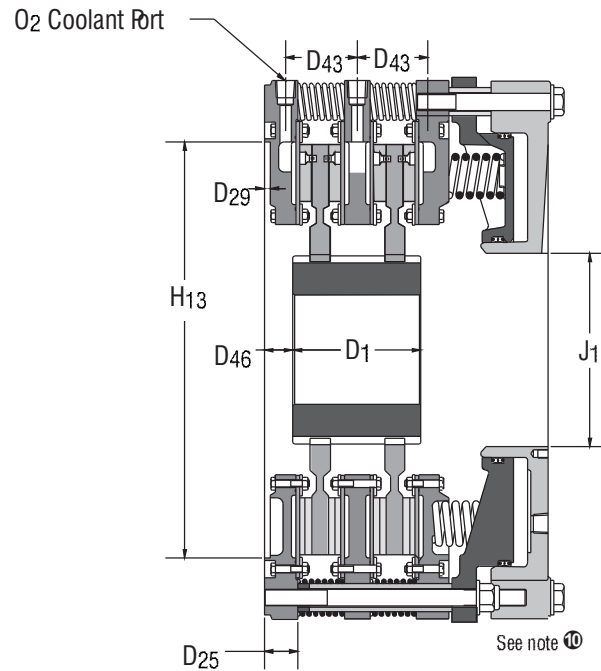


Item	Description
1	Mounting Flange Sub-Assembly
2	Mounting Flange
3	Wear Plate
4	Hex Head Screw
5	Locknut
6	Inner Support Ring
7	Outer Support Ring
8	Stud
9	Friction Disc Sub-Assembly
10	Friction Disc
11	Friction Disc Core
12	Flat Head Screw
14	Clamp Tube
15	Pressure Plate Sub-Assembly
16	Pressure Plate

Item	Description
17	Spring Housing
18	Flat Washer
19	Locknut
20	Cylinder
21	Hex Head Screw
22	Inner Seal
23	Spring
24	Outer Seal
25	Spacer Tube
26	Gear
27	Wear Spacer
28	Reaction Plate Sub-Assembly
29	Reaction Plate
30	Release Spring
31	Spring Retainer



**Single Di c**

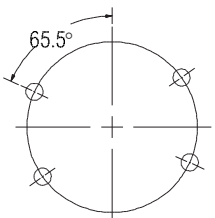


**Dual Di c**

\* Size 18, 24 & 36

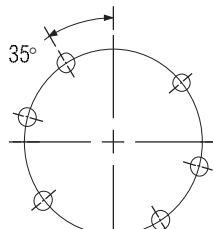
Cu tomor mounting plate mu t provide rigid support and contact for thi length

## Mounting Bolt Circle <sup>2</sup>



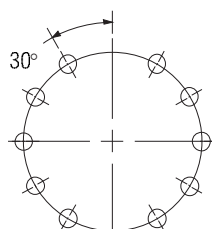
Coolant Inlet Port  
8WCS

(4) 0.531 (13,5)∅ Mounting Holes Based on 6 equally spaced as shown on 11.125



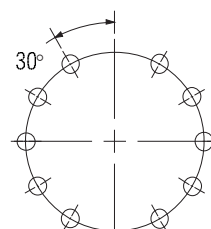
Coolant Inlet Port  
14WCS

(6) 0.656 (16,7)∅ Mounting Holes Based on 8 equally spaced as shown on 17.500



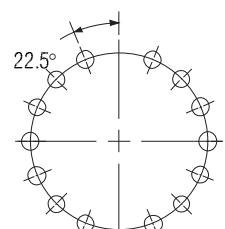
Coolant Inlet Port  
18WCS

(10) 0.656 (16,75)∅ Mounting Holes Based on 12 equally spaced as shown on 22.000



Coolant Inlet Port  
24WCS

(10) 0.656 (16,75)∅ Mounting Holes Based on 12 equally spaced as shown on 22.000

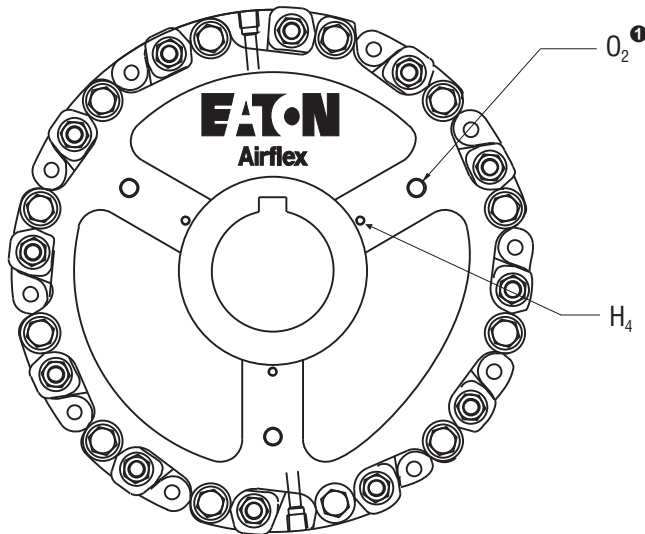


Coolant Inlet Port  
36WCS

(14) 1.062 (27,0)∅ Mounting Holes Based on 16 equally spaced as shown on 42.000

English Dimensions in inches																
Size	D <sub>24</sub>	D <sub>25</sub>	D <sub>29</sub>	D <sub>46</sub>	D <sub>43</sub>	G	H <sub>10</sub>	H <sub>13</sub>	J <sub>1</sub>	J <sub>2</sub>	No.	Size	Bolt Circle	Size	Bolt Circle	
8WCS	0.81	1.25	0.250	2.56	12.125	4.12	8.375	3.12	12.24	3	1/4-20NC-2	3.500	3/8-18	6.63		
14WCS	0.91	1.41	0.250	7	2.81	18.750	7.12	14.375	6.00	18.94	3	3/8-16NC-2	6.500	1/2-14	11.50	
18WCS	0.93	1.47	0.250	1.25	3.14	23.250	11.00	18.250	8.50	23.69	3	3/8-16NC-2	9.125	1/2-14	15.25	
24WCS	1.06	1.75	0.250	1.38	4.13	29.998	12.75	24.375	11.50	30.89	4	3/8-16NC-2	12.250	1/2-14	18.50	
36WCS	1.52	2.58	0.280	2.38	4.88	44.498	16.50	18.375	16.50	45.01	4	1/2-13NC-2	17.500	3/4-14	28.00	
Size	D <sub>24</sub>	D <sub>25</sub>	D <sub>29</sub>	D <sub>46</sub>	D <sub>43</sub>	G	H <sub>10</sub>	H <sub>13</sub>	J <sub>1</sub>	J <sub>2</sub>	O <sub>2</sub> <sup>5</sup>					
											H <sub>4</sub>		O <sub>2</sub> <sup>5</sup>			
											No.	Size	Bolt Circle	Size	Bolt Circle	

## SI Dimensions in millimeters



English	Dimension in inches						
<b>108WCS</b>	1.38	2.50	7.18	1.75	6.68	4	3/8-18
<b>208WCS</b>	1.63	2.50	9.78	4.00	9.25	6	3/8-18
<b>308WCS</b>	1.88	2.31	12.34	7.75	11.81	8	3/8-18
<b>114WCS</b>	2.13	4.38	8.51	2.88	7.72	4	1/2-14
<b>214WCS</b>	2.63	4.49	11.41	4.38	10.70	6	1/2-14
<b>118WCS</b>	2.75	5.75	9.98	2.50	9.29	4	1/2-14
<b>218WCS</b>	3.38	5.88	13.33	5.63	12.55	6	1/2-14
<b>318WCS</b>	4.13	5.81	16.57	9.62	15.82	8	1/2-14
<b>418WCS</b>	4.63	5.81	19.89	12.50	19.02	10	1/2-14
<b>124WCS</b>	3.50	7.50	12.02	3.50	11.04	4	3/4-14
<b>224WCS</b>	4.75	7.50	16.07	8.63	15.05	6	3/4-14
<b>324WCS</b>	5.50	7.38	20.12	13.19	19.00	8	3/4-14
<b>424WCS</b>	6.00	7.38	24.08	16.44	23.80	10	3/4-14
<b>136WCS</b>	5.63	10.63	15.38	5.00	14.28	4	1 1/4-11 1/2
<b>236WCS</b>	7.62	10.75	20.39	9.00	19.14	6	1 1/4-11 1/2
<b>336WCS</b>	7.25	10.88	25.33	13.00	24.02	8	1 1/4-11 1/2
<b>436WCS</b>	8.00	10.88	30.30	18.00	28.89	10	1 1/4-11 1/2

Size	Bore Range <sup>③</sup>		D	D <sub>1</sub>	D <sub>2</sub>	Coolant Port <sup>⑤</sup>	
	Min.	Max.				No.	Size
	Min.	Max.				No.	Size
<b>108WCS</b>	35	64	182	44	170	4	3/8-18
<b>208WCS</b>	41	64	248	102	235	6	3/8-18
<b>308WCS</b>	48	59	313	197	300	8	3/8-18
<b>114WCS</b>	54	111	216	73	272	4	1/2-14
<b>214WCS</b>	67	114	290	111	267	6	1/2-14
<b>118WCS</b>	70	146	253	64	236	4	1/2-14
<b>218WCS</b>	86	149	339	143	319	6	1/2-14
<b>318WCS</b>	105	148	421	222	402	8	1/2-14
<b>418WCS</b>	118	148	505	244	483	10	1/2-14
<b>124WCS</b>	89	191	305	310	282	4	3/4-14
<b>224WCS</b>	121	191	408	219	382	6	3/4-14
<b>324WCS</b>	140	187	511	335	483	8	3/4-14
<b>424WCS</b>	152	187	518	430	605	10	3/4-14
<b>136WCS</b>	143	270	391	127	363	4	1 1/4-11 1/2
<b>236WCS</b>	194	273	518	229	486	6	1 1/4-11 1/2
<b>336WCS</b>	184	276	643	330	610	8	1 1/4-11 1/2
<b>436WCS</b>	203	276	770	457	734	10	1 1/4-11 1/2

SI	Dimension in millimeter						
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### Note

- ① Only two port, 180° apart, furnished on size 8 and 14WCS.
- ② To insure proper cooling, inlet port must be located at the six o'clock position.
- ③ Tolerance Size 8WCS thru 24 WCS +0.000/0.003 (+0,00/-0,08)  
36WCS +0.000/-0.005 (+0,00/-0,13)
- ④ Tolerance +0.003/-0.000 in (+0,00/-0,00 mm)
- ⑤ American National Pipe Thread.
- ⑥ 1.00 in (25mm) for 108WCS.  
1.38 in (35mm) for 208WCS.  
0.19 in (4,8mm) for 308WCS.
- ⑦ 1.06 in (27mm) for 114WCS and 314WCS.  
1.69 in (43mm) for 214WCS.
- ⑧ Maximum bore size are based on flat key, allowable gear hub tre and torque rating with a full complement of spring.
- ⑨ Maximum diameter of a contact surface.
- ⑩ Some high torque application of three and four di element require additional tor ional support on the cylinder end of the unit. Contact your local Airflex representative for more detail.

English	lb in	psi	HP	GPM	lb ft <sup>2</sup>				
<b>108WCS</b>	146244	415313	5600	80	30	3	6.7E-02	9	0.8
<b>208WCS</b>	146245	415314	10000	80	60	6	1.7E-02	12	1.5
<b>308WCS</b>	146376	416457	13950	80	90	9	7.4 E-03	15	2.33
<b>114WCS</b>	146229	415454	20000	80	60	6	2.4E-02	64	6.4
<b>214WCS</b>	146230	415302	37500	80	120	12	6.0E-03	83	12.6
<b>118WCS</b>	146309	302813	40000	80	120	12	1.3E-02	170	20
<b>218WCS</b>	146318	302907	76000	80	240	24	3.2E-03	220	40
<b>318WCS</b>	146311	413208	112000	80	360	36	1.4 E-03	270	60
<b>418WCS</b>	146312	414111	148000	80	480	48	8.0 E-04	320	80
<b>124WCS</b>	146314	411673	82000	80	270	27	8.1E-03	622	78
<b>224WCS</b>	146340	410970	157000	80	540	54	2.0E-03	822	158
<b>324WCS</b>	146371	412433	232000	80	810	81	8.9 E-04	1022	238
<b>424WCS</b>	146372	413195	307000	80	1080	108	5.0 E-04	1222	318
<b>136WCS</b>	146347	415871	283000	80	650	65	2.9E-03	4922	324
<b>236WCS</b>	146341	416069	532000	80	1300	130	7.2E-04	6323	667
<b>336WCS</b>	146272	416539	781000	80	1950	195	3.2 E-04	7724	1010
<b>436WCS</b>	146369	416537	1030000	80	2600	260	1.8 E-04	9125	1353
Size	Part Number	Gear Part Number	M <sub>t</sub> torque Rating	Release Pressure	Thermal Rating	Water Flow Rate	C Pressure Drop Coefficient	Wk <sup>2</sup>	
								Hoisting	Disc & Gear
								J	
<b>108WCS</b>	146244	415313	632	5,5	22,4	11,4	3,2 E-04	0,38	0,03
<b>208WCS</b>	146245	415314	1129	5,5	44,7	22,7	8,2 E-05	0,51	0,06
<b>308WCS</b>	146376	416457	1576	5,5	67	34,1	3,5 E-03	0,64	
<b>114WCS</b>	146229	415454	2258	5,5	44,7	22,7	1,2 E-04	2,70	0,27
<b>214WCS</b>	146230	415302	4234	5,5	89,5	45,4	2,9 E-05	3,50	0,53
<b>118WCS</b>	146309	302813	4516	5,5	89,5	45,4	6,3 E-05	7,16	0,84
<b>218WCS</b>	146318	302907	8580	5,5	179,0	90,9	1,5 E-05	9,27	1,69
<b>318WCS</b>	146311	413208	12645	5,5	268,5	136,3	6,7 E-06	11,38	2,53
<b>418WCS</b>	146312	414111	16709	5,5	357,9	181,7	3,9 E-06	13,48	3,37
<b>124WCS</b>	146314	411673	9258	5,5	201,3	102,2	3,9 E-05	26,21	3,29
<b>224WCS</b>	146340	410970	17725	5,5	402,7	204,4	9,6 E-06	34,64	6,66
<b>324WCS</b>	146371	412433	26193	5,5	604,0	306,6	4,3 E-06	43,07	10,03
<b>424WCS</b>	146372	413195	34660	5,5	805,4	408,9	2,4 E-06	51,50	13,40
<b>136WCS</b>	146347	415871	31951	5,5	484,7	246,1	1,4 E-05	207,41	13,65
<b>236WCS</b>	146341	416069	60063	5,5	969,4	492,1	3,5 E-06	266,45	28,11
<b>336WCS</b>	146272	416539	88175	5,5	1454,1	738,2	1,5 E-06	325,49	42,56
<b>436WCS</b>	146369	416537	116287	5,5	1938,8	984,3	8,7 E-07	384,53	57,02
SI			N m	bar	kW	dm <sup>3</sup> /min		kg m <sup>2</sup>	

## Note :

- ① Basic part number only. Gear must be ordered separately.
- ② Torque ratings are for new lining. Torque decreases with lining wear. At the worn out condition, torque is approximate 0.66 of value shown. Minimum releasing pressure 80 psi (5,5 bar).
- ③ Based upon a 70°F (21°C) fresh water inlet temperature and a 50°F (28°C) temperature rise between inlet and outlet. See cooling requirement.
- ④ To insure proper cooling, inlet port must be located at the six o'clock position. Maximum allowable inlet pressure is 45 psi (3,1 bar).
- ⑤ Based upon a continuous slip velocity of 4500 fpm (22,9 mps).
- ⑥ Maximum freewheeling velocity is 7500 fpm (38,1 mps).
- ⑦ Located from mounting flange surface.
- ⑧ Absolute volume of releasing cylinder.
- ⑨ Contact factory for dimension.

English	rpm		lb		in		in <sup>3</sup>		
108WCS	2150	3400	90	15	3.4	2.0	30	12	10
208WCS	2150	3400	116	30	4.7	3.4	30	24	20
308WCS	2150	3400	121	59	⑨	⑨	30	36	30
114WCS	1260	2100	222	48	4.1	2.4	75	40	29
214WCS	1260	2100	287	86	5.6	3.7	75	75	58
118WCS	955	1600	418	87	4.0	2.6	133	65	54
218WCS	955	1600	548	180	5.5	4.2	133	125	108
318WCS	955	1600	413	273	7.4	6.2	133	185	162
418WCS	955	1600	458	366	10	7.6	133	245	216
124WCS	715	1200	458	180	5.2	3.3	259	160	126
224WCS	715	1200	665	395	7.6	5.7	259	320	252
324WCS	715	1200	872	610	10	8	259	480	378
424WCS	715	1200	1079	625	12.4	10.1	259	640	504
136WCS	475	700	2302	363	6.9	4.3	612	600	337
236WCS	475	700	3300	805	9.5	6.8	612	1135	673
336WCS	475	700	4298	1247	12.11	9.2	612	1670	1009
436WCS	475	700	5296	1689	14.67	11.8	612	2205	1345
Size	⑤ Maximum Slip Speed	Maximum Freewheeling Speed ⑥	Weight		Center of Gravity ⑦		③ Releasing Volume New	Water Volume	Linear Wear Volume
			Houring	Disc & Gear	Houring	Disc & Gear			
			Ma		Center of Gravity				
108WCS	2150	3400	41	7	86	51	0,5	0,20	0,16
208WCS	2150	3400	53	14	119	86	0,5	0,39	0,33
308WCS	2150	3400	55	27	⑨	⑨	0,5	0,60	0,48
114WCS	1260	2100	101	22	104	61	1,2	0,66	0,48
214WCS	1260	2100	130	39	142	94	1,2	1,23	0,95
118WCS	955	1600	146	39	102	66	2,2	1,07	0,89
218WCS	955	1600	167	82	140	107	2,2	2,05	1,77
318WCS	955	1600	187	124	188	157	2,2	3,04	2,66
418WCS	955	1600	208	166	254	193	2,2	4,02	3,55
124WCS	715	1200	208	82	132	84	4,3	2,63	2,07
224WCS	715	1190	302	179	193	145	4,3	5,26	4,14
324WCS	715	1190	395	277	254	203	4,3	7,89	6,21
424WCS	715	1190	489	374	315	257	4,3	10,51	8,28
136WCS	475	700	1044	165	175	109	10,1	9,86	5,54
236WCS	475	700	1497	365	241	173	10,1	18,65	11,06
336WCS	475	700	1949	566	308	234	10,1	27,44	16,58
436WCS	475	700	2402	766	373	300	10,1	36,22	22,10
SI	rpm		kg		mm		dm <sup>3</sup>		