



Rotary Actuator

IC Series

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Code Guide

Actuator Model Code

Example:

IC10 - 25 - 360 - Q F Y J - E

1 2 3 4 5 6 7

1 Series	IC10	IC20	IC30	IC40
2 Max Torque (output Torque/100) in Nm @ 3,045 psi (210 bar)	2, 3, 6, 10, 16, 27	5, 9, 16, 27, 72	19, 28, 47, 73, 105, 140, 180, 240	28, 50, 67
3 Rotation (other angles available)	180°, 360°	180°	180°, 360°	200°, 220°
4 Drive-shaft	Q front flange	Q front flange S double flange	Q front flange S double flange	H spline
5 Mounting	H rear flange	D foot	D foot H rear flange Q front flange G rail	D foot
6 Counter-balance Valve	Y with valve W without valve	Y with valve W without valve	Y with valve W without valve	Y with valve W without valve
7 Thread Pitch	LEFT BLANK metric E imperial	LEFT BLANK metric E imperial	LEFT BLANK metric E imperial	LEFT BLANK metric E imperial

Max Pressure for All Series Actuators: 3,045 psi (210 bar)

Series Overview

Operation Information for Standard Series

IC10 Series

Rotation	180°, 360°
Max Drive Torque	1,590 - 23,890 in-lbs (180 - 2,700 Nm)
Max Holding Torque	5,570 - 89,190 in-lbs (630 - 9,400 Nm)
Max Cantilever Moment	4,950 - 99,120 in-lbs (560 - 11,200 Nm)
Mounting	Flange

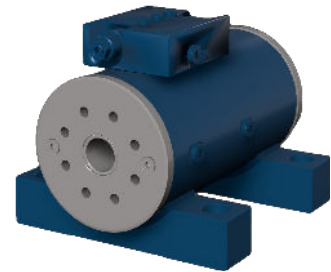
IC10 Series



IC20 Series

Rotation	180°
Max Drive Torque	4,420 - 37,170 in-lbs (500 - 4,200 Nm)
Max Holding Torque	11,500 - 92,930 in-lbs (1,300 - 10,500 Nm)
Max Straddle Moment	22,120 - 279,680 in-lbs (2,500 - 31,600 Nm)
Max Cantilever Moment	12,030 - 139,840 in-lbs (1,360 - 15,800 Nm)
Mounting	Foot

IC20 Series



IC30 Series

Rotation	180°, 360°
Max Drive Torque	16,810 - 212,410 in-lbs (1,900 - 24,000 Nm)
Max Holding Torque	43,360 - 522,190 in-lbs (4,900 - 59,000 Nm)
Max Straddle Moment	169,930 - 2,270,210 in-lbs (19,200 - 256,500 Nm)
Max Cantilever Moment	46,020 - 645,210 in-lbs (5,200 - 72,900 Nm)
Mounting	Foot, Flange, Rail

IC30 Series



IC40 Series

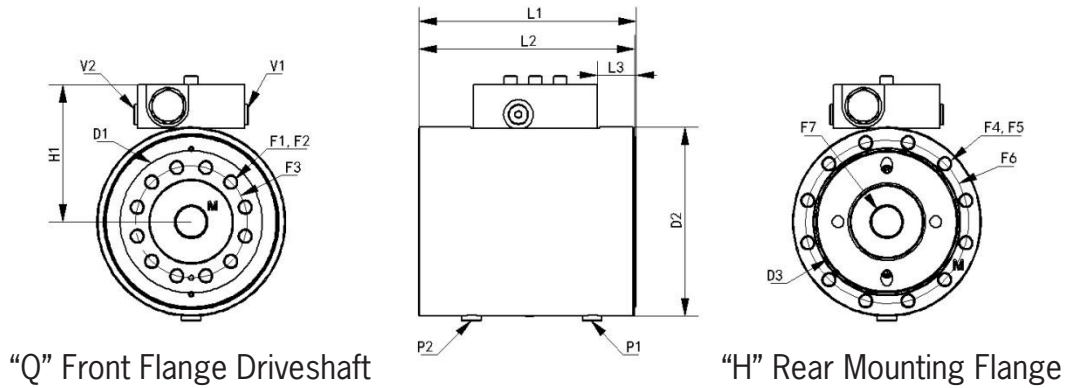
Rotation	200°, 220°
Max Drive Torque	24,780 - 59,290 in-lbs (2,800 - 6,700 Nm)
Max Holding Torque	53,980 - 126,560 in-lbs (6,100 - 14,300 Nm)
Max Straddle Moment	37,170 - 89,390 in-lbs (4,200 - 10,100 Nm)
Mounting	Foot

IC40 Series



IC10 Series

Technical Data



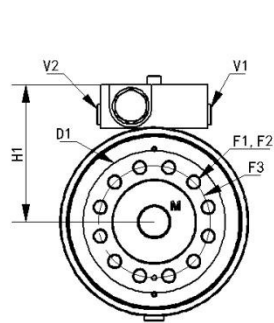
IC10 Series - Imperial (Metric)							
Model		2	3	6	10	16	27
Drive Torque	in-lbs at 3,045psi (Nm at 210 Bar)	1,590 (180)	2,830 (320)	5,310 (600)	8850 (1,000)	14,160 (1,600)	23,890 (2,700)
Holding Torque	in-lbs at 3,045psi (Nm at 210 Bar)	5,570 (630)	10,620 (1,200)	16,810 (1,900)	33,630 (3,800)	50,440 (5,700)	89,190 (9,400)
Max Cantilever Moment	in-lbs (Nm)	4,950 (560)	8,850 (1,000)	19,470 (2,200)	49,560 (5,600)	79,650 (9,000)	99,120 (11,200)
Radial Capacity	lbs (kg)	1,980 (900)	2,970 (1,350)	4,070 (1,850)	7,930 (3,600)	10,970 (4,980)	14,770 (6,700)
Axial Capacity	lbs (kg)	1,980 (900)	2,970 (1,350)	4,070 (1,850)	7,930 (3,600)	10,970 (4,980)	14,770 (6,700)
Displacement	180° cu in (cc)	3.9 (63.9)	7.4 (121)	11.7 (192)	22.3 (365)	33.7 (552)	55.8 (914)
	360° cu in (cc)	N/A	14.8 (243)	23.4 (384)	44.7 (733)	67.4 (1,105)	111.6 (1,829)
Weight	180° lbs (kg)	14.1 (6.4)	22.0 (10)	31.3 (14.2)	57.3 (26)	95.5 (43.3)	125.7 (57)
	360° lbs (kg)	N/A	28.2 (12.8)	42.3 (19.2)	77.2 (35)	120.2 (54.5)	183.0 (83)
D1 Mounting Dia	in (mm)	3.0 (77.2)	3.5 (89)	4.0 (102)	5.0 (127)	5.8 (148)	7.3 (185)
D2 Housing Dia	in (mm)	3.9 (100)	4.7 (119)	5.3 (135)	6.7 (170)	7.8 (198)	8.9 (226)

* Specific chart for reference only, please consult drawing for actual value and tolerance.

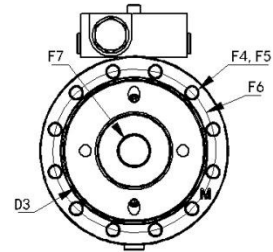
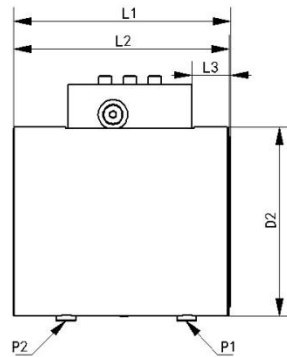
* Maximum operating pressure: 3,045 psi (210 bar)

IC10 Series (Continued)

Technical Data



“Q” Front Flange Driveshaft



“H” Rear Mounting Flange

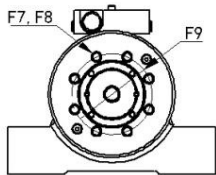
IC10 Series - Imperial (Metric)							
Model		2	3	6	10	16	27
F1 Thread Pitch	in (mm)	5/16"-18 UFC (M8 X 1.25)	5/16"-18 UFC (M8 X 1.25)	3/8"-16 UFC (M10 X 1.5)	1/2"-13 UFC (M12 X 1.75)	1/2"-13 UFC (M12 X 1.75)	5/8"-11 UFC (M16 X 2)
F2 No. Tapped Holes	QTY	8	8	12	12	12	12
F3 Bolt Circle Diameter, Shaft	in (mm)	2.125 (54)	2.875 (73)	3.125 (80)	4.0 (102)	5.0 (127)	5.5 (140)
F4 Thread Pitch	in (mm)	5/16"-18 UFC (M8 X 1.25)	5/16"-18 UFC (M8 X 1.25)	3/8"-16 UFC (M10 X 1.5)	1/2"-13 UFC (M12 X 1.75)	1/2"-13 UFC (M12 X 1.75)	1/2"-13 UFC (M12 X 1.75)
F5 No. Tapped Holes	QTY	8	8	12	12	12	12
F6 Bolt Circle Diameter, Housing	in (mm)	3.386 (86)	4.055 (103)	4.605 (117)	5.940 (151)	6.885 (175)	7.990 (203)
F7 Thru-Hole Diameter	in (mm)	0.6 (14.3)	0.7 (17)	0.8 (21.4)	1.4 (35.7)	1.8 (45.7)	2.6 (66.7)
H1 Center Line to Valve Top	in (mm)	3.1 (80)	3.5 (90)	3.9 (98)	4.5 (115)	5.1 (129)	5.6 (143)
L1 Length	180° in (mm)	5.5 (140)	5.6 (143)	6.1 (156)	7.2 (184)	8.8 (224)	9.5 (241)
	360° in (mm)		7.4 (189)	8.3 (212)	10.1 (258)	12.1 (311)	13.5 (346)
L2 Length	180° in (mm)	5.4 (138)	5.6 (142)	6.1 (154)	7.2 (182)	8.7 (221)	9.4 (239)
	360° in (mm)		7.4 (188)	8.3 (211)	10.1 (256)	12.1 (308)	13.5 (344)
L3 Distance to Valve	180° in (mm)	1.0 (25.4)	1.1 (26.9)	1.1 (27.7)	1.1 (27.9)	1.5 (38.6)	1.7 (43.9)
	360° in (mm)		0.9 (22.6)	1.0 (24.6)	1.7 (42.7)	2.4 (60.2)	2.8 (70.4)
P1 P2 Oil Port, Housing		7/16" -20 UNF (G 1/8" BSPP)					
V1 V2 Oil Port with optional counterbalance valve		7/16" -20 UNF (G 1/8" BSPP)					

* Specific chart for reference only, please consult drawing for actual value and tolerance.

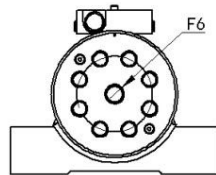
* Maximum operating pressure: 3,045 psi (210 bar)

IC20 Series

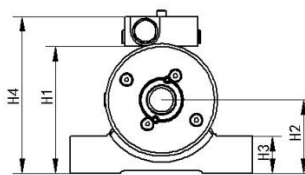
Technical Data



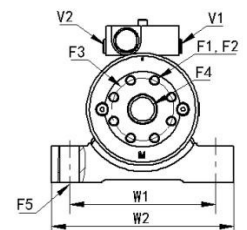
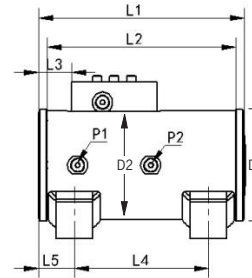
Rear End Cap
Model 27 & 42



Front Flange
Driveshaft
Model 27 & 42



Rear End Cap
Model 5, 9, 16



Front Flange
Driveshaft
Model 5, 9, 16

IC20 Series - Imperial (Metric)						
Model		5	9	16	27	42
Drive Torque	in-lbs at 3,045psi (Nm at 210 Bar)	4,420 (500)	7,960 (900)	14,160 (1,600)	23,710 (2,680)	37,170 (4,200)
Holding Torque	in-lbs at 3,045psi (Nm at 210 Bar)	11,500 (1,300)	21,240 (2,400)	38,940 (4,400)	62,840 (7,100)	92,930 (10,500)
Max Straddle Moment	in-lbs (Nm)	22,120 (2,500)	39,820 (4,500)	90,270 (10,200)	145,150 (16,400)	279,680 (31,600)
Max Cantilever Moment	in-lbs (Nm)	12,030 (1,360)	21,940 (2,480)	47,970 (5,420)	100,010 (11,300)	139,840 (15,800)
Radial Capacity	lbs (kg)	3,040 (1,380)	4,690 (2130)	9,230 (4,190)	12,300 (5,580)	21,010 (9,530)
Axial Capacity	lbs (kg)	1,100 (500)	1,490 (680)	2,200 (1,000)	3,080 (1,400)	3,900 (1,770)
Displacement	180° cu in (cc)	8.1 (132)	14.3 (234)	26.6 (436)	44.3 (726)	65.3 (1,070)
Weight	180° lbs (kg)	27.6 (12.5)	37.5 (17)	66.1 (30)	112.4 (51)	169.8 (77)

*Specific chart for reference only, please consult drawing for actual value and tolerance.

*Maximum operating pressure: 3,045 psi (210 bar)

IC20 Series (Continued)

Technical Data

IC20 Series - Imperial (Metric)						
Model		5	9	16	27	42
D1 Mounting Dia	in (mm)	4.1 (104)	4.6 (117)	5.6 (142)	6.7 (170)	7.7 (196)
D2 Housing Dia	in (mm)	4.0 (101)	4.5 (114)	5.5 (139)	6.5 (165)	7.5 (191)
F1 Thread Pitch	in (mm)	3/8"-16 UFC (M10 X 1.5)	3/8"-16 UFC (M10 X 1.5)	1/2"-13 UFC (M12 X 1.75)	3/4"-10 UFC (M20 X 2.5)	3/4"-10 UFC (M20 X 2.5)
F2 No. Tapped Holes	QTY	6	8	8	8	10
F3 Bolt Circle Diameter, Shaft	in (mm)	2.1 (53.9)	2.6 (65)	3.3 (85)	4.0 (102)	4.8 (121)
F4 Thru-Hole Dia	in (mm)	3/4" UFC (M20)	1" UFC (M24)	1" UFC (M24)		
F5 Foot Tapped Hole	in (mm)	5/8" UFC (M16)	3/4" UFC (M20)	1" UFC (M24)	1" UFC (M24)	1 1/4" UFC (M30)
F6 Threaded Center Hole Dia	in (mm)				1"-8 UFC. (M24 X 3)	1 1/4"-7 UFC (M30 X 3.5)
F7 Mounting Flange Thread Pitch	in (mm)				1/2"-13 UFC (M12 X 1.75)	5/8"-11 UFC (M16 X 2)
F8 No. of Tapped Holes	QTY				8	10
F9 Bolt Circle Diameter, Rear Cap	in (mm)				4.3 (108)	4.8 (121)

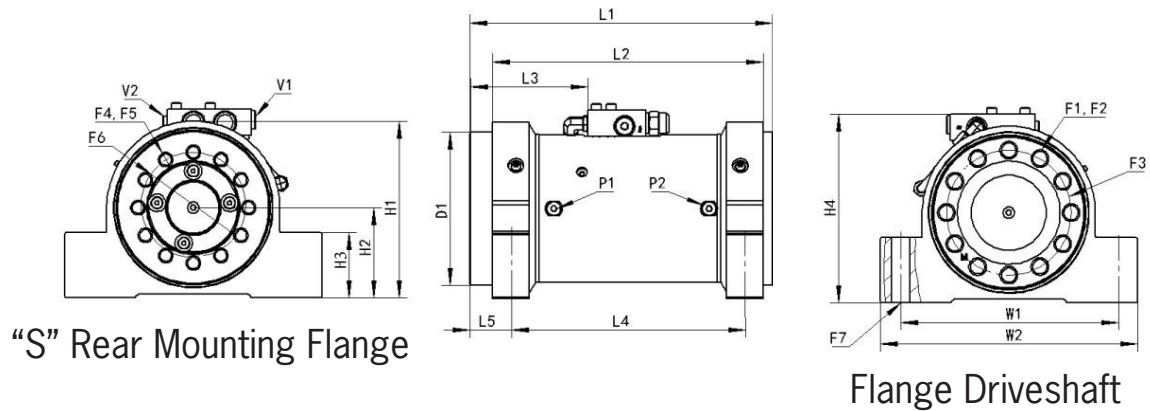
IC20 Series - Imperial (Metric)						
Model		5	9	16	27	42
H1 Height Without Counterbalance Valve	in (mm)	4.7 (119)	5.3 (135)	6.2 (158)	7.6 (193)	8.6 (218)
H2 Height of Center Shaft	in (mm)	2.6 (66)	3.0 (76.2)	3.4 (85.9)	4.3 (108)	4.8 (121)
H3 Foot Height	in (mm)	1.4 (34.3)	1.5 (38.1)	1.8 (44.5)	2.5 (63.5)	2.8 (70)
H4 Total Height with optional counterbalance valve	in (mm)	5.7 (146)	6.4 (163)	7.3 (185)	8.7 (220)	9.6 (245)
L1 Total Length	in (mm)	7.4 (188)	8.5 (216)	9.8 (248)	11.7 (298)	13.3 (337)
L2 Length Without Flange	in (mm)	6.8 (173)	7.8 (197)	9.0 (229)	10.9 (276)	12.4 (314)
L3 Dist. Between Flange and Counterbalance Valve	in (mm)	1.3 (32)	1.4 (34.5)	1.8 (44.7)	1.9 (48.8)	1.9 (49)
L4 Mounting Length	in (mm)	4.4 (111)	5.5 (140)	6.0 (152)	7.2 (184)	8.5 (216)
L5 Flange Mounting Hole	in (mm)	1.5 (37.9)	1.5 (37.6)	1.9 (47)	2.3 (57.2)	2.4 (60.5)
W1 Mounting Width	in (mm)	5.7 (145)	6.0 (152)	7.8 (197)	8.7 (222)	10.5 (267)
W2 Overall Width	in (mm)	7.0 (178)	7.5 (191)	9.8 (248)	11.0 (279)	13.0 (330)
P1 P2 Oil Port, Housing		7/16" -20 UNF				
V1 V2 Oil Port with optional counterbalance valve		7/16" -20 UNF				

*Specific chart for reference only, please consult drawing for actual value and tolerance.

*Maximum operating pressure: 3,045 psi (210 bar)

IC30 Foot Mounting Series

Technical Data



IC30 Foot Mounting Series - Imperial (Metric)									
Model		19	28	47	73	105	140	180	240
Drive Torque	in-lbs at 3,045psi (Nm at 210 Bar)	16,810 (1,900)	24,780 (2,800)	41,590 (4,700)	64,610 (7,300)	92,930 (10,500)	123,910 (14,000)	159,310 (18,000)	212,410 (24,000)
Holding Torque	in-lbs at 3,045psi (Nm at 210 Bar)	43,360 (4,900)	60,180 (6,800)	106,200 (12,000)	159,310 (18,000)	230,110 (26,000)	309,770 (35,000)	407,130 (46,000)	522,190 (59,000)
Max Cantilever Moment	in-lbs (Nm)	46,020 (5,200)	62,840 (7,100)	105,320 (11,900)	162,850 (18,400)	261,090 (29,500)	343,400 (38,800)	494,750 (55,900)	645,210 (72,900)
Max Straddle Moment	180° in-lbs (Nm)	118,590 (13,400)	149,570 (16,900)	272,600 (30,800)	423,060 (47,800)	664,690 (75,100)	875,330 (98,900)	1,155,020 (130,500)	1,504,620 (170,000)
	360° in-lbs (Nm)	169,930 (19,200)	217,720 (24,600)	401,820 (45,400)	630,170 (71,200)	986,850 (111,500)	1,292,200 (146,000)	1,749,790 (197,700)	2,270,210 (256,500)
Radial Capacity	lbs (kg)	3,960 (1,800)	5,070 (2,300)	7,930 (3,600)	11,020 (5,000)	14,990 (6,800)	18,070 (8,200)	22,040 (10,000)	26,010 (11,800)
Axial Capacity	lbs (kg)	3,080 (1,400)	3,960 (1,800)	5,950 (2,700)	7,930 (3,600)	9,920 (4,500)	13,000 (5,900)	14,990 (6,800)	18,070 (8,200)

* Specific chart for reference only, please consult drawing for actual value and tolerance.

* Maximum operating pressure: 3,045 psi (210 bar)

IC30 Foot Mounting Series (Continued)

Technical Data

IC30 Foot Series - Imperial (Metric)									
Model		19	28	47	73	105	140	180	240
Displacement	180° cu in (cc)	30.0 (492)	42.0 (688)	72.0 (1,180)	114.1 (1,870)	163.5 (2,680)	216.0 (3,540)	283.8 (4,650)	366.1 (6,000)
	360° cu in (cc)	59.8 (980)	84.8 (1,390)	144.0 (2,360)	228.2 (3,740)	327.1 (5,360)	432.0 (7,080)	568.7 (9,320)	732.3 (12,000)
Weight	180° lbs (kg)	70 (34.5)	110 (50)	150 (72.5)	240 (110)	350 (160)	480 (220)	610 (280)	790 (360)
	360° lbs (kg)	100 (45.5)	130 (63.4)	220 (100)	300 (140)	440 (200)	630 (290)	810 (370)	1,000 (455)
D1 Mounting Dia	in (mm)	5.5 (139)	6.1 (155)	7.2 (183)	8.2 (209)	9.2 (234)	10.4 (263)	11.3 (288)	12.2 (310)
F1 Thread Pitch	in (mm)	1/2"-13 UFC (M12 X 1.75)	5/8"-11 UFC (M16 X 2)	3/4"-10 UFC (M20 X 2.5)	7/8"-9 UFC (M22 X 2.5)	1"-8 UFC (M24 X 3)	1 1/8"-7 UFC (M27 X 3)	1 1/8"-7 UFC (M27 X 3)	1 1/4"-7 UFC (M30 X 3.5)
F2 No. Tapped Holes	QTY	12	12	12	12	12	12	12	12
F3 Bolt Circle Diameter, Shaft	in (mm)	4.5 (115)	4.9 (125)	5.9 (150)	6.7 (170)	7.7 (195)	8.5 (215)	9.4 (240)	10.0 (255)
F4 Thread Pitch	in (mm)	3/8"-16 UFC (M10 X 1.5)	1/2"-13 UFC (M12 X 1.75)	5/8"-11 UFC (M16 X 2)	3/4"-10 UFC (M20 X 2.5)	7/8"-9 UFC (M22 X 2.5)	1"-8 UFC (M24 X 3)	1"-8 UFC (M27 X 3)	1 1/8"-7 UFC (M27 X 3)
F5 No. Tapped Holes	QTY	12	12	12	12	12	12	12	12
F6 Bolt Circle Diameter, End Cap	in (mm)	4.3 (108)	4.7 (120)	5.2 (133)	5.9 (150)	6.7 (170)	7.5 (190)	8.3 (210)	9.1 (230)
F7 Dia of Mounting Hole	in (mm)	5/8" UFC (M16)	3/4" UFC (M20)	7/8" UFC (M22)	1" UFC (M24)	1 1/8" UFC (M27)	1 1/4" UFC (M30)	1 3/8" UFC (M36)	1 3/8" UFC (M36)

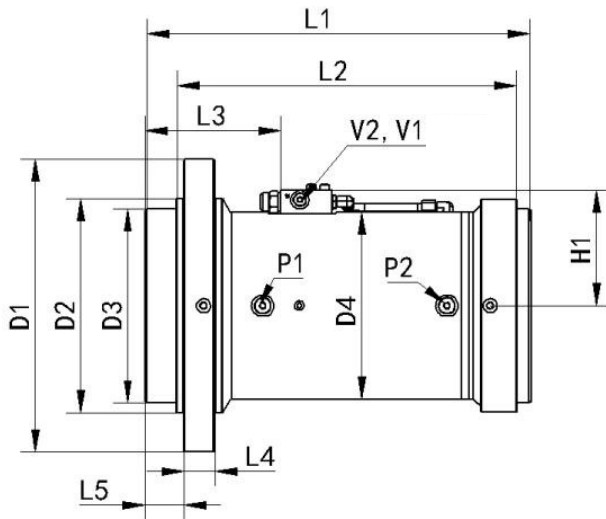
IC30 Foot Series - Imperial (Metric)									
Model		19	28	47	73	105	140	180	240
H1 Height Without Counterbalance Valve	in (mm)	6.1 (156)	7.3 (186)	8.3 (212)	9.4 (240)	10.9 (276)	12.0 (305)	12.9 (327)	14.3 (362)
H2 Center Height Hole	in (mm)	3.1 (80)	3.7 (94.9)	4.3 (108)	4.8 (122)	5.5 (140)	6.1 (154)	6.5 (165)	7.2 (184)
H3 Foot Height	in (mm)	1.9 (48)	2.8 (70)	3.1 (78)	3.5 (88)	4.1 (105)	4.3 (110)	4.7 (120)	5.3 (135)
H4 Total Height with optional counterbalance valve	in (mm)	7.0 (179)	7.9 (201)	8.9 (226)	10.7 (271)	11.1 (283)	12.2 (310)	13.1 (334)	14.4 (366)
L1 Total Length	180° in (mm)	11.7 (298)	12.7 (323)	14.4 (365)	16.3 (413)	18.7 (475)	20.6 (524)	21.7 (551)	23.6 (600)
	360° in (mm)	16.8 (427)	18.5 (470)	21.2 (538)	24.2 (615)	27.8 (705)	30.6 (776)	32.9 (836)	35.7 (906)
L2 Length Without Flange	180° in (mm)	10.3 (261)	11.3 (286)	12.7 (323)	14.3 (363)	17.0 (431)	18.2 (463)	19.4 (493)	21.0 (534)
	360° in (mm)	15.4 (392)	17.0 (433)	19.5 (496)	22.2 (565)	26.0 (661)	28.1 (715)	30.5 (775)	33.2 (843)
L3 Dist. Between Flange and Counterbalance Valve	180° in (mm)	3.0 (75.2)	5.3 (134)	5.6 (143)	5.1 (130)	6.0 (152)	7.3 (185)	7.7 (196)	8.7 (221)
	360° in (mm)	5.9 (149)	6.2 (157)	7.8 (197)	9.1 (232)	10.5 (267)	12.1 (308)	13.3 (338)	14.7 (374)
L4 Mounting Length	180° in (mm)	9.0 (229)	9.8 (248)	11.1 (281)	12.4 (314)	14.7 (374)	15.7 (400)	16.8 (426)	18.1 (460)
	360° in (mm)	14.1 (358)	15.6 (395)	17.9 (454)	20.3 (516)	23.8 (604)	25.7 (652)	27.9 (708)	30.2 (766)
L5 Flange Mounting Hole	180° in (mm)	1.5 (38.1)	1.7 (43.9)	2.0 (50)	2.2 (56.9)	2.4 (59.9)	2.9 (74.2)	3.0 (75.9)	3.1 (80)
W1 Mounting Width	in (mm)	7.5 (190)	9.1 (230)	10.2 (260)	11.8 (300)	13.4 (340)	15.0 (380)	16.1 (410)	17.7 (450)
W2 Total Width	in (mm)	8.7 (222)	10.6 (268)	12.2 (310)	13.8 (350)	15.7 (400)	17.6 (447)	19.1 (484)	20.9 (530)
P1 P2 Oil Port, Housing		ISO-11926 SAE Series. Sizes vary from 7/16 to 3/4. (ISO-1179-1 BSPP 'G' Series. Sizes vary from 1/4 to 1/2.) See drawing for details.							
V1 V2 Oil Port with optional counterbalance valve		ISO-11926 SAE Series. Sizes vary from 7/16 to 3/4. (ISO-1179-1 BSPP 'G' Series. Sizes vary from 1/4 to 1/2.) See drawing for details.							

* Specific chart for reference only, please consult drawing for actual value and tolerance.

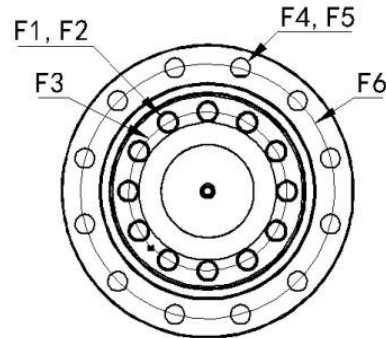
* Maximum operating pressure: 3,045 psi (210 bar)

IC30 Flange Mounting Series

Technical Data



"Q" Front Mounting Flange



Flange Driveshaft

IC30 Flange Mounting Series - Imperial (Metric)									
Model		19	28	47	73	105	140	180	240
Drive Torque	in-lbs at 3,045psi (Nm at 210 Bar)	16,810 (1,900)	24,780 (2,800)	41,590 (4,700)	64,610 (7,300)	92,930 (10,500)	123,910 (14,000)	159,310 (18,000)	212,410 (24,000)
Holding Torque	in-lbs at 3,045psi (Nm at 210 Bar)	43,360 (4,900)	60,180 (6,800)	106,200 (12,000)	159,310 (18,000)	230,110 (26,000)	309,770 (35,000)	407,130 (46,000)	522,190 (59,000)
Max Cantilever Moment	in-lbs (Nm)	46,020 (5,200)	62,840 (7,100)	105,320 (11,900)	162,850 (18,400)	261,090 (29,500)	343,400 (38,800)	494,750 (55,900)	645,210 (72,900)
Max Straddle Moment	180° in-lbs (Nm)	118,590 (13,400)	149,570 (16,900)	272,600 (30,800)	423,060 (47,800)	664,690 (75,100)	875,330 (98,900)	1,155,020 (130,500)	1,504,620 (170,000)
	360° in-lbs (Nm)	169,930 (19,200)	217,720 (24,600)	401,820 (45,400)	630,170 (71,200)	986,850 (111,500)	1,292,200 (146,000)	1,749,790 (197,700)	2,270,210 (256,500)
Radial Capacity	lbs (kg)	3,960 (1,800)	5,070 (2,300)	7,930 (3,600)	11,020 (5,000)	14,990 (6,800)	18,070 (8,200)	22,040 (10,000)	26,010 (11,800)
Axial Capacity	lbs (kg)	3,080 (1,400)	3,960 (1,800)	5,950 (2,700)	7,930 (3,600)	9,920 (4,500)	13,000 (5,900)	14,990 (6,800)	18,070 (8,200)

*Specific chart for reference only, please consult drawing for actual value and tolerance.

*Maximum operating pressure: 3,045 psi (210 bar)

IC30 Flange Mounting Series (Continued)

Technical Data

IC30 Flange Mounting Series - Imperial (Metric)									
Model		19	28	47	73	105	140	180	240
Displacement	180° cu in (cc)	30.0 (492)	42.0 (688)	72.0 (1180)	114.1 (1870)	163.5 (2,680)	216.0 (3,540)	283.8 (4,650)	366.1 (6,000)
	360° cu in (cc)	59.8 (980)	84.8 (1,390)	144.0 (2,360)	228.2 (3,740)	327.1 (5,360)	432.0 (7,080)	568.7 (9,320)	732.3 (12,000)
Weight	180° lbs (kg)	70 (34.5)	110 (50)	150 (72.5)	240 (110)	350 (160)	480 (220)	610 (280)	790 (360)
	360° lbs (kg)	100 (45.5)	130 (63.4)	220 (100)	300 (140)	440 (200)	630 (290)	810 (370)	1,000 (455)
D1 Total Flange Dia	in (mm)	7.9 (200)	9.3 (235)	11.0 (280)	12.4 (315)	14.0 (355)	15.6 (396)	17.4 (442)	18.7 (475)
D2 Pilot Dia	in (mm)	5.9 (150)	6.9 (175)	8.1 (205)	9.1 (230)	10.2 (260)	11.4 (290)	12.4 (315)	13.4 (340)
D3 Mounting Disk	in (mm)	5.5 (139)	6.1 (155)	7.2 (183)	8.2 (209)	9.2 (234)	10.4 (263)	11.3 (288)	12.2 (310)
D4 Housing Dia	in (mm)	5.5 (140)	6.0 (152)	7.0 (178)	8.0 (203)	9.0 (229)	10.0 (254)	11.0 (279)	12.0 (305)
F1 Thread Pitch	in (mm)	1/2"-13 UFC (M12 X 1.75)	5/8"-11 UFC (M16 X 2)	3/4"-10 UFC (M20 X 2.5)	7/8"-9 UFC (M22 X 2.5)	1"-8 UFC (M24 X 3)	1 1/8"-7 UFC (M27 X 3)	1 1/8"-7 UFC (M27 X 3)	1 1/4"-7 UFC (M30 X 3.5)
F2 No. Tapped Holes	QTY	12	12	12	12	12	12	12	12
F3 Bolt Circle Diameter, Shaft	in (mm)	4.5 (115)	4.9 (125)	5.9 (150)	6.7 (170)	7.7 (195)	8.5 (215)	9.4 (240)	10.0 (255)
F4 Thread Pitch	in (mm)	3/8"-16 UFC (M10 X 1.5)	1/2"-13 UFC (M12 X 1.75)	5/8"-11 UFC (M16 X 2)	3/4"-10 UFC (M20 X 2.5)	7/8"-9 UFC (M22 X 2.5)	1"-8 UFC (M24 X 3)	1 1/8"-7 UFC (M27 X 3)	1 1/8"-7 UFC (M27 X 3)
F5 No. Tapped Holes	QTY	12	12	12	12	12	12	12	12
F6 Bolt Circle Diameter, Housing	in (mm)	6.9 (175)	8.1 (206)	9.6 (245)	10.8 (275)	12.2 (310)	13.6 (345)	15.0 (380)	16.1 (410)

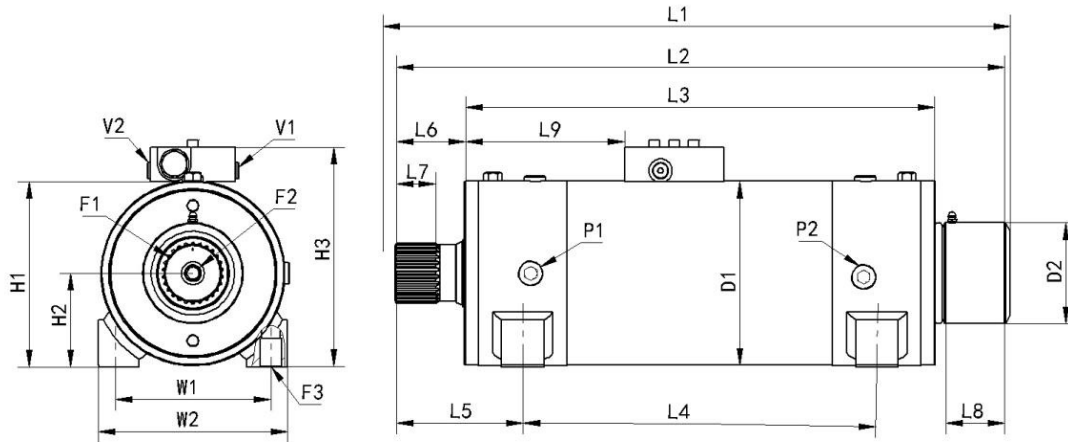
IC30 Flange Mounting Series - Imperial (Metric)									
Model		19	28	47	73	105	140	180	240
H1 Center Line to Valve Top	in (mm)	3.9 (99.1)	4.2 (106)	4.6 (118)	5.2 (131)	5.7 (144)	6.1 (156)	6.7 (169)	7.2 (182)
L1 Total Length	180° in (mm)	11.7 (298)	12.7 (323)	14.4 (365)	16.3 (413)	18.7 (475)	20.6 (524)	21.7 (551)	23.6 (600)
	360° in (mm)	16.8 (427)	18.5 (470)	21.2 (538)	24.2 (615)	27.8 (705)	30.6 (776)	32.9 (836)	35.7 (906)
L2 Length Without Flange	180° in (mm)	10.3 (261)	11.3 (286)	12.7 (323)	14.3 (363)	17.0 (431)	18.2 (463)	19.4 (493)	21.0 (534)
	360° in (mm)	15.4 (392)	17.0 (433)	19.5 (496)	22.2 (565)	26.0 (661)	28.1 (715)	30.5 (775)	33.2 (843)
L3 Dist. Between Flange and Counterbalance Valve	180° in (mm)	3.0 (75.2)	5.3 (134)	5.6 (143)	5.1 (130)	6.0 (152)	7.3 (185)	7.7 (196)	8.7 (221)
	360° in (mm)	5.9 (149)	6.2 (157)	7.8 (197)	9.1 (232)	10.5 (267)	12.1 (308)	13.3 (338)	14.7 (374)
L4 Mounting Flange Thickness	in (mm)	1.0 (25.2)	1.0 (26)	1.2 (31)	1.3 (33)	1.6 (40)	1.7 (42)	1.8 (46)	2.0 (52)
L5 Outer Flange to Inner Flange	in (mm)	1.1 (27)	1.3 (32)	1.4 (35)	1.7 (42)	1.6 (40)	2.1 (53)	2.1 (54)	2.2 (56)
P1 P2 Oil Port, Housing		ISO-11926 SAE Series. Sizes vary from 7/16 to 3/4. (ISO-1179-1 BSPP 'G' Series. Sizes vary from 1/4 to 1/2.) See drawing for details.							
V1 V2 Oil Port with optional counterbalance valve		ISO-11926 SAE Series. Sizes vary from 7/16 to 3/4. (ISO-1179-1 BSPP 'G' Series. Sizes vary from 1/4 to 1/2.) See drawing for details.							

*Specific chart for reference only, please consult drawing for actual value and tolerance.

*Maximum operating pressure: 3,045 psi (210 bar)

IC40 Series

Technical Data



IC40 Series - Imperial (Metric)				
Model		28	50	67
Drive Torque	in-lbs at 3,045psi (Nm at 210 Bar)	24,780 (2,800)	44,250 (5,000)	59,290 (6,700)
Holding Torque	in-lbs at 3,045psi (Nm at 210 Bar)	53,980 (6,100)	93,810 (10,600)	126,560 (14,300)
Standard Rotation		220°	220°	200°
Max Straddle Moment	in-lbs at 3,045psi (Nm at 210 Bar)	37,170 (4,200)	67,260 (7,600)	89,390 (10,100)
Radial Capacity	lbs (kg)	4,490 (2,040)	6,900 (3,130)	8,590 (3,900)
Axial Capacity	lbs (kg)	4,490 (2,040)	6,900 (3,130)	8,590 (3,900)
Displacement	cu in (cc)	47.3 (775)	83.0 (1,360)	100.7 (1,650)
Weight	lbs (kg)	70 (33.6)	120 (58)	160 (75)
Driveshaft Profile		ANSI B92.2 (DIN 5480)		

*Specific chart for reference only, please consult drawing for actual value and tolerance.

*Maximum operating pressure: 3,045 psi (210 bar)

IC40 Series (Continued)

Technical Data

IC40 Series - Imperial (Metric)				
Model		28	50	67
D1 Housing Dia	in (mm)	5.5 (140)	6.5 (165)	7.0 (178)
D2 Optional Spline Cover Dia	in (mm)	3.1 (80)	3.5 (89.9)	3.9 (98.3)
F1 Shaft Spline	in (mm)	For metric and imperial dimensions, see drawing.		
F2 Thread Pitch	in (mm)	1/2"-13 UFC (M12 X 1.75)	1/2"-13 UFC (M12 X 1.75)	5/6"-18 UFC (M12 X 1.75)
F3 Thread Pitch	in (mm)	5/8"-11 UFC (M16 X 2)	3/4"-10 UFC (M20 X 2.5)	7/8"-9 UFC (M22 X 2.5)
H1 Height Without Counterbalance Valve	in (mm)	5.9 (150)	6.9 (176)	8.0 (203)
H2 Center Height Hole	in (mm)	2.9 (73.2)	3.3 (83.9)	4.0 (102)
H3 Total Height with optional counter-balance valve	in (mm)	6.8 (173)	7.7 (196)	8.7 (220)

IC40 Series - Imperial (Metric)				
Model		28	50	67
L1 Total Length With Optional Cover	in (mm)	17.0 (431)	22.1 (561)	23.9 (608)
L2 Total Length Without Optional Cover	in (mm)	16.4 (417)	21.5 (546)	22.8 (579)
L3 Total Length Without Driveshaft	in (mm)	13.2 (335)	16.6 (422)	17.5 (445)
L4 Length of Foot Mounting	in (mm)	10.4 (265)	12.6 (320)	12.6 (320)
L5 Mounting Hole to End of Shaft	in (mm)	3.0 (75.1)	4.4 (113)	5.1 (130)
L6 Shaft Extension	in (mm)	1.6 (40.9)	2.4 (61.9)	2.7 (67.6)
L7 Spline Length	in (mm)	0.8 (20.6)	1.6 (40)	1.9 (49)
L8 Length of Optional Cover	in (mm)	1.3 (32.5)	2.1 (52.6)	2.4 (60.5)
W1 Length of Foot Mounting	in (mm)	4.1 (104)	5.5 (140)	5.9 (150)
W2 Overall Width	in (mm)	5.2 (133)	6.7 (170)	8.0 (203)
P1 P2 Oil Port, Housing		ISO-11926 SAE Series. Sizes vary from 7/16 to 9/16. (ISO-1179-1 BSPP 'G' Series. Sizes vary from 1/8 to 1/4.) See drawing for details.		
V1 V2 Oil Port with optional counterbalance valve if purchased		ISO-11926 SAE Series. Sizes vary from 7/16 to 9/16. (ISO-1179-1 BSPP 'G' Series. Sizes vary from 1/8 to 1/4.) See drawing for details.		

* Specific chart for reference only, please consult drawing for actual value and tolerance.

* Maximum operating pressure: 3,045 psi (210 bar)

Helac Drop-In Replacement

IC10 Series	
ICFP Number	Helac Part Number
IC10-003-180-QHWJ-E	L10-3.0-E-RF-180-S1-O-H
IC10-003-360-QHWJ-E	L10-3.0-E-RF-360-S1-O-H
IC10-006-180-QHWJ-E	L10-5.5-E-RF-180-S1-O-H
IC10-006-360-QHWJ-E	L10-5.5-E-RF-360-S1-O-H
IC10-010-180-QHWJ-E	L10-9.5-E-RF-180-S1-O-H
IC10-010-360-QHWJ-E	L10-9.5-E-RF-360-S1-O-H
IC10-016-180-QHWJ-E	L10-15-E-RF-180-S1-O-H
IC10-016-360-QHWJ-E	L10-15-E-RF-360-S1-O-H
IC10-027-180-QHWJ-E	L10-25-E-RF-180-S1-O-H
IC10-027-360-QHWJ-E	L10-25-E-RF-360-S1-O-H
IC10-003-180-QHYJ-E	L10-3.0-E-RF-180-S1-C-H
IC10-003-360-QHYJ-E	L10-3.0-E-RF-360-S1-C-H
IC10-006-180-QHYJ-E	L10-5.5-E-RF-180-S1-C-H
IC10-006-360-QHYJ-E	L10-5.5-E-RF-360-S1-C-H
IC10-010-180-QHYJ-E	L10-9.5-E-RF-180-S1-C-H
IC10-010-360-QHYJ-E	L10-9.5-E-RF-360-S1-C-H
IC10-016-180-QHYJ-E	L10-15-E-RF-180-S1-C-H
IC10-016-360-QHYJ-E	L10-15-E-RF-360-S1-C-H
IC10-027-180-QHYJ-E	L10-25-E-RF-180-S1-C-H
IC10-027-360-QHYJ-E	L10-25-E-RF-360-S1-C-H

IC20 Series	
ICFP Number	Helac Part Number
IC20-005-180-QDWJ-E	L20-4.5-E-FT-180-S1-O-H
IC20-009-180-QDWJ-E	L20-8.2-E-FT-180-S1-O-H
IC20-016-180-QDWJ-E	L20-15-E-FT-180-S1-O-H
IC20-027-180-QDWJ-E	L20-25-E-FT-180-S1-O-H
IC20-042-180-QDWJ-E	L20-39-E-FT-180-S1-O-H
IC20-005-180-QDYJ-E	L20-4.5-E-FT-180-S1-C-H
IC20-009-180-QDYJ-E	L20-8.2-E-FT-180-S1-C-H
IC20-016-180-QDYJ-E	L20-15-E-FT-180-S1-C-H
IC20-027-180-QDYJ-E	L20-25-E-FT-180-S1-C-H
IC20-042-180-QDYJ-E	L20-39-E-FT-180-S1-C-H
IC20-005-180-SDWJ-E	L20-4.5-E-FT-180-S2-O-H
IC20-009-180-SDWJ-E	L20-8.2-E-FT-180-S2-O-H
IC20-016-180-SDWJ-E	L20-15-E-FT-180-S2-O-H
IC20-027-180-SDWJ-E	L20-25-E-FT-180-S2-O-H
IC20-042-180-SDWJ-E	L20-39-E-FT-180-S2-O-H
IC20-005-180-SDYJ-E	L20-4.5-E-FT-180-S2-C-H
IC20-009-180-SDYJ-E	L20-8.2-E-FT-180-S2-C-H
IC20-016-180-SDYJ-E	L20-15-E-FT-180-S2-C-H
IC20-027-180-SDYJ-E	L20-25-E-FT-180-S2-C-H
IC20-042-180-SDYJ-E	L20-39-E-FT-180-S2-C-H

IC30 Series	
ICFP Number	Helac Part Number
IC30-019-180-QDWJ-E	L30-17-E-FT-180-S1-O-H
IC30-019-360-QDWJ-E	L30-17-E-FT-360-S1-O-H
IC30-028-180-QDWJ-E	L30-25-E-FT-180-S1-O-H
IC30-028-360-QDWJ-E	L30-25-E-FT-360-S1-O-H
IC30-047-180-QDWJ-E	L30-42-E-FT-180-S1-O-H
IC30-047-360-QDWJ-E	L30-42-E-FT-360-S1-O-H
IC30-073-180-QDWJ-E	L30-65-E-FT-180-S1-O-H
IC30-073-360-QDWJ-E	L30-65-E-FT-360-S1-O-H
IC30-105-180-QDWJ-E	L30-95-E-FT-180-S1-O-H
IC30-105-360-QDWJ-E	L30-95-E-FT-360-S1-O-H
IC30-140-180-QDWJ-E	L30-125-E-FT-180-S1-O-H
IC30-140-360-QDWJ-E	L30-125-E-FT-360-S1-O-H
IC30-180-180-QDWJ-E	L30-165-E-FT-180-S1-O-H
IC30-180-360-QDWJ-E	L30-165-E-FT-360-S1-O-H
IC30-240-180-QDWJ-E	L30-215-E-FT-180-S1-O-H
IC30-240-360-QDWJ-E	L30-215-E-FT-360-S1-O-H
IC30-019-180-QQWJ-E	L30-17-E-FF-180-S1-O-H
IC30-019-360-QQWJ-E	L30-17-E-FF-360-S1-O-H
IC30-028-180-QQWJ-E	L30-25-E-FF-180-S1-O-H
IC30-028-360-QQWJ-E	L30-25-E-FF-360-S1-O-H
IC30-047-180-QQWJ-E	L30-42-E-FF-180-S1-O-H
IC30-047-360-QQWJ-E	L30-42-E-FF-360-S1-O-H
IC30-073-180-QQWJ-E	L30-65-E-FF-180-S1-O-H
IC30-073-360-QQWJ-E	L30-65-E-FF-360-S1-O-H
IC30-105-180-QQWJ-E	L30-95-E-FF-180-S1-O-H
IC30-105-360-QQWJ-E	L30-95-E-FF-360-S1-O-H
IC30-140-180-QQWJ-E	L30-125-E-FF-180-S1-O-H
IC30-140-360-QQWJ-E	L30-125-E-FF-360-S1-O-H
IC30-180-180-QQWJ-E	L30-165-E-FF-180-S1-O-H
IC30-180-360-QQWJ-E	L30-165-E-FF-360-S1-O-H
IC30-240-180-QQWJ-E	L30-215-E-FF-180-S1-O-H
IC30-240-360-QQWJ-E	L30-215-E-FF-360-S1-O-H
IC30-019-180-QDYJ-E	L30-17-E-FT-180-S1-C-H
IC30-019-360-QDYJ-E	L30-17-E-FT-360-S1-C-H
IC30-028-180-QDYJ-E	L30-25-E-FT-180-S1-C-H
IC30-028-360-QDYJ-E	L30-25-E-FT-360-S1-C-H
IC30-047-180-QDYJ-E	L30-42-E-FT-180-S1-C-H
IC30-047-360-QDYJ-E	L30-42-E-FT-360-S1-C-H
IC30-073-180-QDYJ-E	L30-65-E-FT-180-S1-C-H
IC30-073-360-QDYJ-E	L30-65-E-FT-360-S1-C-H
IC30-105-180-QDYJ-E	L30-95-E-FT-180-S1-C-H
IC30-105-360-QDYJ-E	L30-95-E-FT-360-S1-C-H
IC30-140-180-QDYJ-E	L30-125-E-FT-180-S1-C-H
IC30-140-360-QDYJ-E	L30-125-E-FT-360-S1-C-H
IC30-180-180-QDYJ-E	L30-165-E-FT-180-S1-C-H
IC30-180-360-QDYJ-E	L30-165-E-FT-360-S1-C-H
IC30-240-180-QDYJ-E	L30-215-E-FT-180-S1-C-H
IC30-240-360-QDYJ-E	L30-215-E-FT-360-S1-C-H
IC30-019-180-QQYJ-E	L30-17-E-FF-180-S1-C-H

Helac Drop-In Replacement

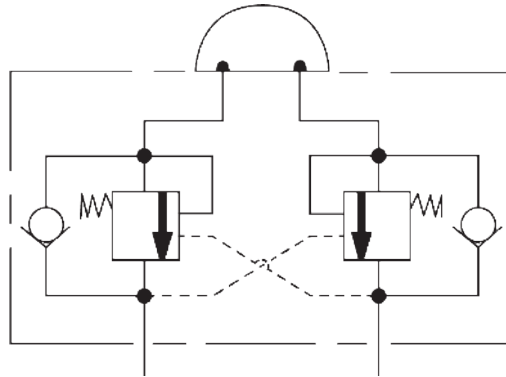
IC30 Series (Cont.)	
ICFP Number	Helac Part Number
IC30-019-360-QQYJ-E	L30-17-E-FF-360-S1-C-H
IC30-028-180-QQYJ-E	L30-25-E-FF-180-S1-C-H
IC30-028-360-QQYJ-E	L30-25-E-FF-360-S1-C-H
IC30-047-180-QQYJ-E	L30-42-E-FF-180-S1-C-H
IC30-047-360-QQYJ-E	L30-42-E-FF-360-S1-C-H
IC30-073-180-QQYJ-E	L30-65-E-FF-180-S1-C-H
IC30-073-360-QQYJ-E	L30-65-E-FF-360-S1-C-H
IC30-105-180-QQYJ-E	L30-95-E-FF-180-S1-C-H
IC30-105-360-QQYJ-E	L30-95-E-FF-360-S1-C-H
IC30-140-180-QQYJ-E	L30-125-E-FF-180-S1-C-H
IC30-140-360-QQYJ-E	L30-125-E-FF-360-S1-C-H
IC30-180-180-QQYJ-E	L30-165-E-FF-180-S1-C-H
IC30-180-360-QQYJ-E	L30-165-E-FF-360-S1-C-H
IC30-240-180-QQYJ-E	L30-215-E-FF-180-S1-C-H
IC30-240-360-QQYJ-E	L30-215-E-FF-360-S1-C-H
IC30-019-180-SDWJ-E	L30-17-E-FT-180-S2-O-H
IC30-019-360-SDWJ-E	L30-17-E-FT-360-S2-O-H
IC30-028-180-SDWJ-E	L30-25-E-FT-180-S2-O-H
IC30-028-360-SDWJ-E	L30-25-E-FT-360-S2-O-H
IC30-047-180-SDWJ-E	L30-42-E-FT-180-S2-O-H
IC30-047-360-SDWJ-E	L30-42-E-FT-360-S2-O-H
IC30-073-180-SDWJ-E	L30-65-E-FT-180-S2-O-H
IC30-073-360-SDWJ-E	L30-65-E-FT-360-S2-O-H
IC30-105-180-SDWJ-E	L30-95-E-FT-180-S2-O-H
IC30-105-360-SDWJ-E	L30-95-E-FT-360-S2-O-H
IC30-140-180-SDWJ-E	L30-125-E-FT-180-S2-O-H
IC30-140-360-SDWJ-E	L30-125-E-FT-360-S2-O-H
IC30-180-180-SDWJ-E	L30-165-E-FT-180-S2-O-H
IC30-180-360-SDWJ-E	L30-165-E-FT-360-S2-O-H
IC30-240-180-SDWJ-E	L30-215-E-FT-180-S2-O-H
IC30-240-360-SDWJ-E	L30-215-E-FT-360-S2-O-H
IC30-019-180-QQWJ-E	L30-17-E-FF-180-S2-O-H
IC30-019-360-QQWJ-E	L30-17-E-FF-360-S2-O-H
IC30-028-180-QQWJ-E	L30-25-E-FF-180-S2-O-H
IC30-028-360-QQWJ-E	L30-25-E-FF-360-S2-O-H
IC30-047-180-QQWJ-E	L30-42-E-FF-180-S2-O-H
IC30-047-360-QQWJ-E	L30-42-E-FF-360-S2-O-H
IC30-073-180-QQWJ-E	L30-65-E-FF-180-S2-O-H
IC30-073-360-QQWJ-E	L30-65-E-FF-360-S2-O-H
IC30-105-180-QQWJ-E	L30-95-E-FF-180-S2-O-H
IC30-105-360-QQWJ-E	L30-95-E-FF-360-S2-O-H
IC30-140-180-QQWJ-E	L30-125-E-FF-180-S2-O-H
IC30-140-360-QQWJ-E	L30-125-E-FF-360-S2-O-H
IC30-180-180-QQWJ-E	L30-165-E-FF-180-S2-O-H
IC30-180-360-QQWJ-E	L30-165-E-FF-360-S2-O-H
IC30-240-180-QQWJ-E	L30-215-E-FF-180-S2-O-H
IC30-240-360-QQWJ-E	L30-215-E-FF-360-S2-O-H
IC30-019-180-SDYJ-E	L30-17-E-FT-180-S2-C-H
IC30-019-360-SDYJ-E	L30-17-E-FT-360-S2-C-H
IC30-028-180-SDYJ-E	L30-25-E-FT-180-S2-C-H

IC30 Series (Cont.)	
ICFP Number	Helac Part Number
IC30-028-360-SDYJ-E	L30-25-E-FT-360-S2-C-H
IC30-047-180-SDYJ-E	L30-42-E-FT-180-S2-C-H
IC30-047-360-SDYJ-E	L30-42-E-FT-360-S2-C-H
IC30-073-180-SDYJ-E	L30-65-E-FT-180-S2-C-H
IC30-073-360-SDYJ-E	L30-65-E-FT-360-S2-C-H
IC30-105-180-SDYJ-E	L30-95-E-FT-180-S2-C-H
IC30-105-360-SDYJ-E	L30-95-E-FT-360-S2-C-H
IC30-140-180-SDYJ-E	L30-125-E-FT-180-S2-C-H
IC30-140-360-SDYJ-E	L30-125-E-FT-360-S2-C-H
IC30-180-180-SDYJ-E	L30-165-E-FT-180-S2-C-H
IC30-180-360-SDYJ-E	L30-165-E-FT-360-S2-C-H
IC30-240-180-SDYJ-E	L30-215-E-FT-180-S2-C-H
IC30-240-360-SDYJ-E	L30-215-E-FT-360-S2-C-H
IC30-019-180-SQYJ-E	L30-17-E-FF-180-S2-C-H
IC30-019-360-SQYJ-E	L30-17-E-FF-360-S2-C-H
IC30-028-180-SQYJ-E	L30-25-E-FF-180-S2-C-H
IC30-028-360-SQYJ-E	L30-25-E-FF-360-S2-C-H
IC30-047-180-SQYJ-E	L30-42-E-FF-180-S2-C-H
IC30-047-360-SQYJ-E	L30-42-E-FF-360-S2-C-H
IC30-073-180-SQYJ-E	L30-65-E-FF-180-S2-C-H
IC30-073-360-SQYJ-E	L30-65-E-FF-360-S2-C-H
IC30-105-180-SQYJ-E	L30-95-E-FF-180-S2-C-H
IC30-105-360-SQYJ-E	L30-95-E-FF-360-S2-C-H
IC30-140-180-SQYJ-E	L30-125-E-FF-180-S2-C-H
IC30-140-360-SQYJ-E	L30-125-E-FF-360-S2-C-H
IC30-180-180-SQYJ-E	L30-165-E-FF-180-S2-C-H
IC30-180-360-SQYJ-E	L30-165-E-FF-360-S2-C-H
IC30-240-180-SQYJ-E	L30-215-E-FF-180-S2-C-H
IC30-240-360-SQYJ-E	L30-215-E-FF-360-S2-C-H

IC40 Series	
ICFP Number	Helac Part Number
IC40-028-220-HDWJ-E	T20-25-E-FT-220-DS-O-H
IC40-050-220-HDWJ-E	T20-45-E-FT-220-DS-O-H
IC40-067-200-HDWJ-E	T20-60-E-FT-200-DS-O-H
IC40-028-220-HDYJ-E	T20-25-E-FT-220-DS-C-H
IC40-050-220-HDYJ-E	T20-45-E-FT-220-DS-C-H
IC40-067-200-HDYJ-E	T20-60-E-FT-200-DS-C-H
IC40-030-220-HDWJ-E	T30-27-E-FT-220-DS-O-H

Counterbalance Valve Block

IC10, IC20, IC30 Series



Optional factory mounted counterbalance valves prevent rotation in the event of a hydraulic line failure, control rotation when loads go over center, and protect the actuator against excessive torque loads. Counterbalance valves may also be purchased separately and added at a later time. Spare parts for the counterbalance valve are available.

Counterbalance Valve Guide	
Part Number	Application
ZM0021260A Aluminum 6061	IC10-002-series
	IC10-003-series
	IC10-006-series
	IC10-010-series
	IC10-016-series
	IC10-027-series
	IC20-005-series
	IC20-009-series
	IC20-016-series
	IC30-019-series
ZM0021270 Steel 1045	IC30-090-series
	IC20-027-series
	IC20-042-series
ZM0021280 Steel 1045	IC30-028-series
	IC30-047-series
	IC30-073-series
	IC30-105-series
	IC30-140-series
	IC30-180-series
	IC30-240-series
	IC30-285-series

21260A Counterbalance Valve Block

Manufactured from aluminum, the valve blocks are bolted to a flat mounting pad on the actuator housing. Three bolts secure the valve block to the actuator. See each individual series page for specific valve locations.

The pilot ratio is 3:1. The valves are set to relieve at 3,300 psi (228 bar).

21270 Counterbalance Valve Block

Manufactured from steel, the valve blocks are bolted to a flat mounting pad on the actuator housing. Three bolts secure the valve block to the actuator. See each individual series page for specific valve locations.

The pilot ratio is 3:1. The valves are set to relieve at 3,300 psi (228 bar).

21280 Counterbalance Valve Block

Manufactured from steel, the valve blocks are bolted to a flat mounting pad on the actuator housing. Valve locations and plumbing routing differ among sizes. See each individual series page for specific valve locations.

The pilot ratio is 3:1. The valves are set to relieve at 3,625 psi (250 bar).

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