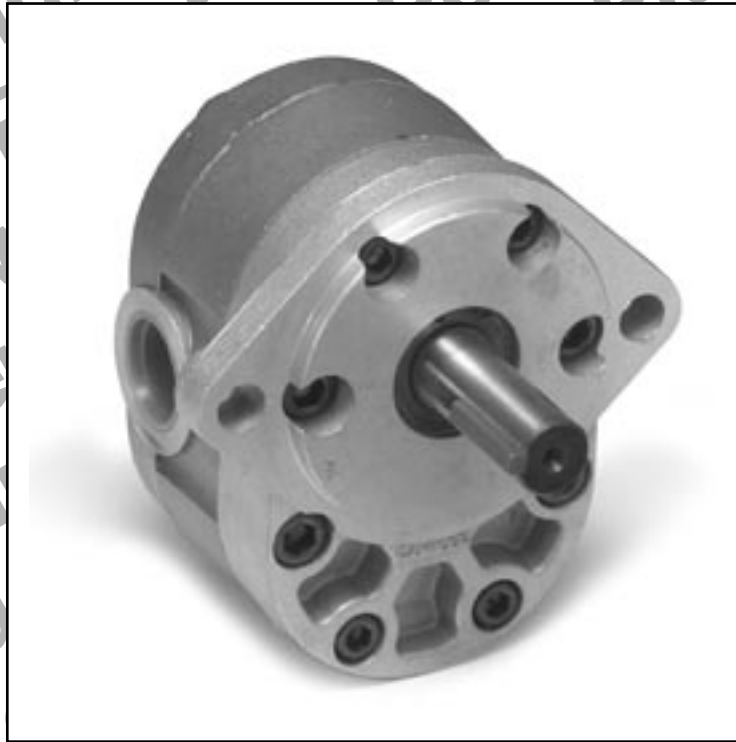
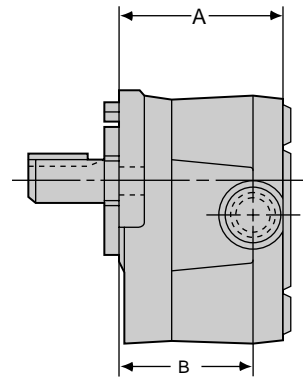
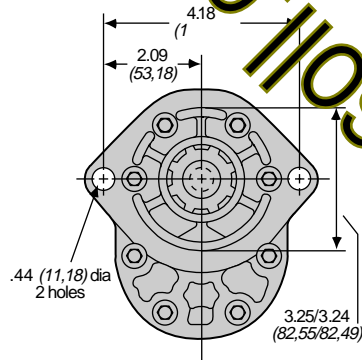


YC Series Pumps & Motors

Caseco/Ingersoll Rand



YC Series Hydraulic Pumps and Motors



low-friction
lead bronze
bearings.

SAE "A" 2-bolt mounting flange.



Nitrile double lip seals

Pump or Motor Displacement Code	058YC	077YC	116YC	125YC	155YC	194YC
Theoretical displacement in ³ /rev (cm ³ /rev)	.58 (9,5)	.77 (12,6)	1.16 (19,0)	1.25 (20,5)	1.55 (25,4)	1.94 (31,8)
Maximum continuous pressure psi (bar)	2500 (172)	2500 (172)	2500 (172)	2500 (172)	2500 (172)	2000 (138)
Pump-maximum speed (rpm)	3000	3000	3000	3000	3000	3000
Motor-maximum speed (rpm)	5000	5000	4000	4000	4000	3000

Model Number	058YC M058YC	077YC M077YC	116YC M116YC	125YC M125YC	155YC M155YC	194YC M194YC
A" inches (mm)	2.69 (68,33)	2.81 (71,37)	3.06 (77,72)	3.15 (80,01)	3.31 (84,07)	3.56 (90,42)
B" inches (mm)	1.88 (47,75)	2.03 (51,56)	2.28 (57,91)	2.32 (58,93)	2.53 (64,26)	2.78 (70,61)

YC Pumps		gpm (l/min)					
rpm	psi (bar)	058YC	077YC	116YC	125YC	155YC	194YC
1800	500 (34)	7.4 (27,8)	5.9 (22,3)	9.0 (34,1)	9.8 (37,1)	12.0 (45,4)	15.0 (56,8)
	1000 (69)	4.6 (17,2)	5.8 (22,0)	8.9 (33,9)	9.6 (36,3)	11.9 (45,0)	14.9 (56,4)
	2000 (138)	4.3 (17,0)	5.7 (21,6)	8.8 (33,3)	9.2 (34,8)	11.8 (44,7)	14.8 (56,0)
	2500 (172)	4.4 (16,7)	5.6 (21,2)	8.7 (32,9)	9.0 (34,1)	11.8 (44,7)	— —
3000	500 (34)	7.9 (29,9)	9.9 (37,5)	14.9 (56,4)	15.8 (59,8)	20.0 (75,7)	25.0 (94,6)
	1000 (69)	7.8 (29,5)	9.8 (37,1)	14.8 (56,0)	15.6 (59,0)	19.9 (75,3)	24.9 (94,2)
	2000 (138)	7.7 (29,1)	9.7 (36,7)	14.7 (55,6)	15.2 (57,5)	19.8 (74,9)	24.8 (93,9)
	2500 (172)	7.6 (28,8)	9.6 (36,3)	14.6 (55,3)	15.0 (56,8)	19.8 (74,9)	— —

		Input Horsepower hp (kW)					
rpm	psi (bar)	058YC	077YC	116YC	125YC	155YC	194YC
1800	500 (34)	1.7 (1,3)	2.2 (1,6)	3.5 (2,6)	4.3 (3,2)	4.9 (3,7)	5.5 (4,1)
	1000 (69)	3.6 (2,7)	4.5 (3,4)	6.2 (4,6)	7.6 (5,7)	8.8 (6,6)	10.0 (7,5)
	2000 (138)	6.5 (4,8)	8.2 (6,1)	8.9 (6,6)	15.0 (11,2)	16.2 (12,1)	19.0 (14,2)
	2500 (172)	9.0 (6,7)	11.3 (8,4)	15.0 (11,2)	19.8 (14,8)	21.0 (15,7)	— —
3000	500 (34)	3.2 (2,4)	4.0 (3,0)	5.8 (4,3)	7.0 (5,2)	8.0 (6,0)	9.3 (6,9)
	1000 (69)	6.0 (4,5)	7.5 (5,6)	10.5 (7,8)	12.5 (9,3)	14.2 (10,6)	16.0 (11,9)
	2000 (138)	10.8 (8,1)	13.5 (10,1)	20.0 (14,9)	24.7 (18,4)	27.5 (20,5)	31.0 (23,1)
	2500 (172)	15.2 (11,3)	19.0 (14,2)	25.0 (18,7)	32.0 (23,9)	34.0 (25,4)	— —

MYC Motors		Input Flow gpm (l/min)					
rpm	psi (bar)	M058YC	M077YC	M116YC	M125YC	M155YC	M194YC
2000	500 (34)	5.7 (21,6)	7.2 (27,3)	10.5 (39,7)	11.2 (42,4)	14.0 (53,0)	17.2 (65,1)
	1000 (69)	5.8 (22,0)	7.3 (27,6)	10.8 (40,9)	11.5 (43,5)	14.2 (53,7)	17.8 (67,4)
	2000 (138)	6.2 (23,5)	7.8 (29,5)	11.4 (43,1)	12.2 (46,2)	15.1 (57,2)	19.0 (71,6)
	2500 (172)	6.4 (24,2)	8.0 (30,3)	11.7 (44,3)	12.5 (47,3)	16.0 (60,6)	— —
4000	500 (34)	10.9 (41,3)	13.7 (51,9)	20.2 (76,5)	21.6 (81,8)	27.2 (103,0)	25.6* (96,9)
	1000 (69)	11.2 (42,4)	14.0 (53,0)	20.8 (78,7)	22.2 (84,0)	27.8 (105,2)	26.2* (99,2)
	2000 (138)	11.6 (43,9)	14.5 (54,9)	21.0 (79,5)	23.0 (87,1)	29.0 (109,8)	28.0* (106,0)
	2500 (172)	11.7 (44,3)	14.7 (55,6)	22.0 (83,3)	23.5 (88,9)	29.5 (111,7)	— —

		Torque lb-in (daNm)					
rpm	psi (bar)	M058YC	M077YC	M116YC	M125YC	M155YC	M194YC
2000	500 (34)	32.8 (0,4)	41.0 (0,5)	75.0 (0,8)	80.4 (0,9)	98.0 (1,1)	110.0 (1,2)
	1000 (69)	79.2 (0,9)	99.0 (1,1)	160.0 (1,8)	171.5 (1,9)	210.0 (2,4)	250.0 (2,8)
	2000 (138)	172.0 (1,9)	215.0 (2,4)	328.0 (3,7)	351.6 (4,0)	442.0 (5,0)	560.0 (6,3)
	2500 (172)	216.0 (2,4)	270.0 (3,1)	390.0 (4,4)	418.0 (4,7)	548.0 (6,2)	— —
4000	500 (34)	22.4 (0,2)	28.0 (0,3)	42.0 (0,5)	45.0 (0,5)	50.0 (0,6)	76.0* (0,9)
	1000 (69)	68.0 (0,8)	85.0 (1,0)	132.0 (1,5)	141.5 (1,6)	163.0 (1,8)	221.0* (2,5)
	2000 (138)	168.0 (1,9)	210.0 (2,4)	308.0 (3,5)	330.1 (3,7)	29.0 (0,3)	520.0* (5,9)
	2500 (172)	208.8 (2,4)	261.0 (2,9)	370.0 (4,2)	396.6 (4,5)	29.5 (0,3)	— —

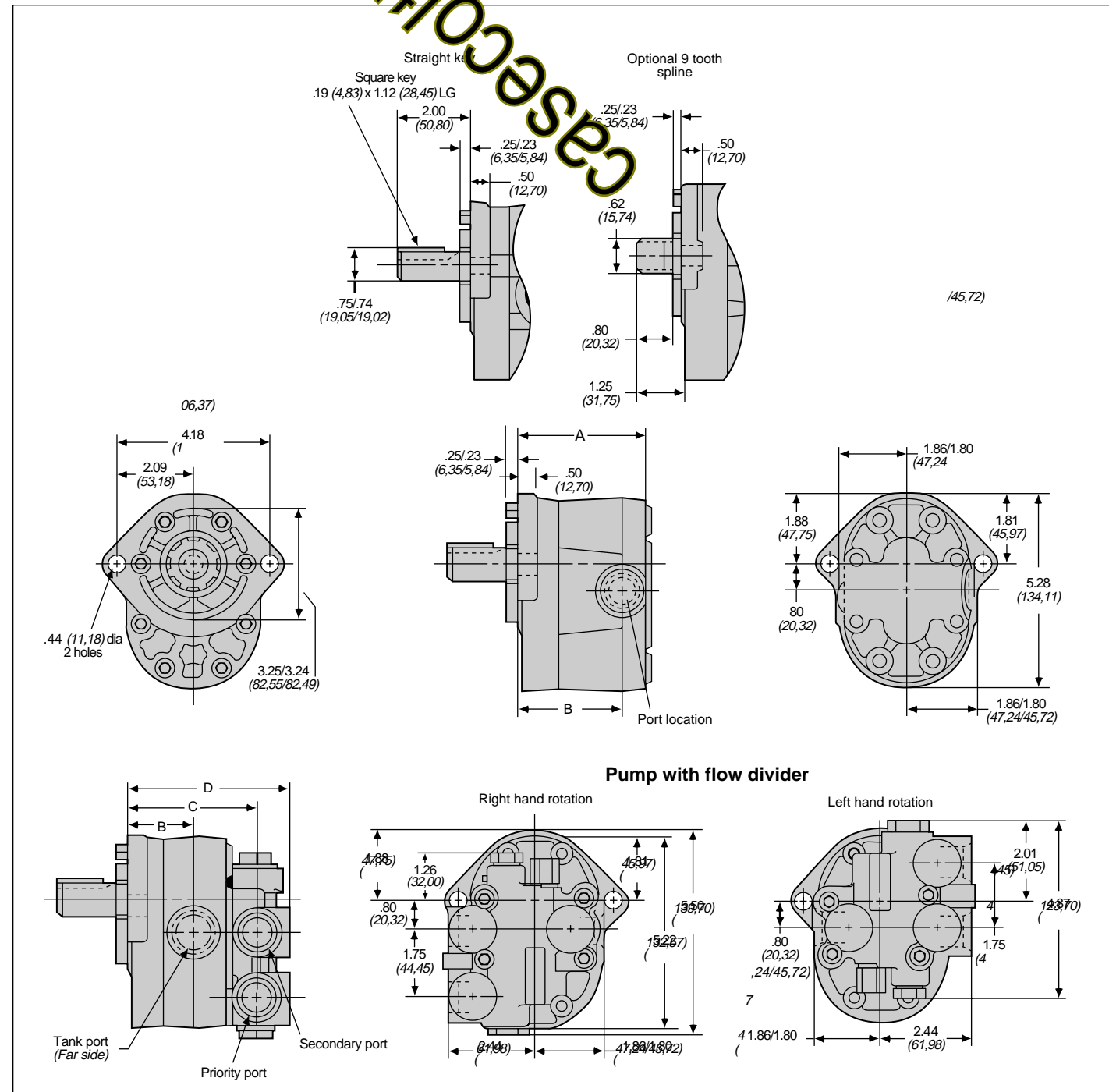
Test data at 175 SUS Hydraulic Oil @ 120° F (49° C).
For higher speeds consult QCC.

* Performance data available to 3000 rpm.
* Performance data rated at 3000 rpm.

2-3
4-5
6-11
12-13
14-15
16-21
22-23

Dimensions

Model	"A"		"B"		"C"		"D"	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
058YC	2.69	(68,33)	1.86	(47,24)	3.53	(89,66)	4.53	(115,06)
077YC	2.81	(71,37)	2.03	(51,56)	3.51	(89,15)	4.50	(114,30)
116YC	3.06	(77,72)	2.28	(57,91)	3.76	(95,50)	4.75	(120,65)
127YC	3.15	(80,01)	2.32	(58,93)	3.99	(101,35)	4.99	(126,75)
165YC	3.31	(84,07)	2.53	(64,26)	4.01	(101,85)	5.00	(127,00)
194YC	3.56	(90,42)	2.78	(70,61)	4.26	(108,20)	5.25	(133,35)



rpm hp	l/min kW	Flow Input
5.4	24,2	8.0
0.8	0,6	0.9
5.2	23,5	7.9
2.4	1,79	3.2
5.2	23,5	7.8
4.8	3,58	6.0
5.2	23,5	7.8
5.5	4,45	8.4
5.1	23,0	7.7
3.7	6,49	10.8
6.0	22,7	7.6
12.0	8,95	15.2
2400		3000

Operating Temperatures (continued)

Oil in a hydraulic system that is consistently overheated will break down, forming varnish on system components, and destroying system sealing materials. Poor and erratic system operation is the usual result of an overheated system. If system temperatures are expected to consistently exceed 180° F (82,2 °C), it will be necessary to place a heat exchanger in the system.

Drives

YC Series hydraulic pumps can be mounted in either direct or indirect drive configurations. The pump mount and drive should be designed to minimize axial and radial loads on the pump shaft. The preferred method is direct mounting using a flex coupler. The coupler may be omitted if .004" (0,10 mm) total indicator reading is maintained between the pilot mounting diameter and the drive shaft powering the pump. For indirect drives, consult factory.

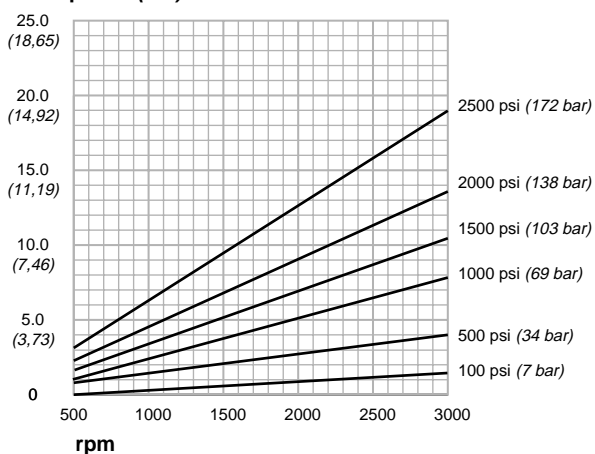
System Plumbing

The major objective in the specification of tubing and hose sizes is to limit maximum oil velocity. This results in quieter system operation, consistent temperature operation, and a reduction of heat through the elimination of pressure drops. To avoid pump cavitation, maximum inlet line flow should not exceed 10 ft/sec. (3,04 m/sec). Inlet vacuum should not exceed 5" (127mm) Hg at the normal operating temperature. Continuous operation at vacuums in excess of 5" (127mm) Hg will cause premature unit failure.

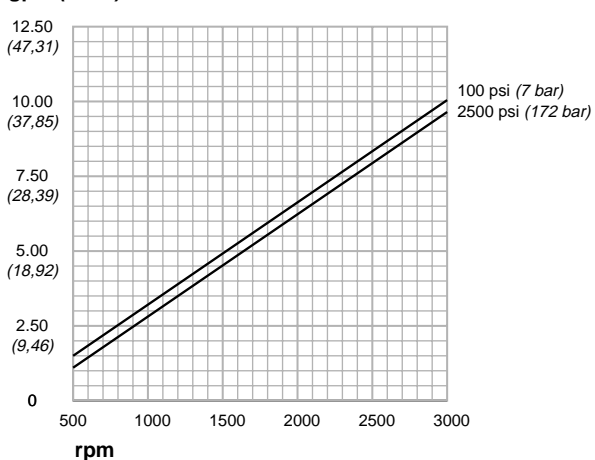
Model 077C — Typical Performance Data

Pressure	Flow Input	
	gpm hp	l/min kW
100 psi (7 bar)	1.8	6,8
	0.2	0,15
500 psi (34 bar)	1.7	6,4
	0.5	0,37
1000 psi (69 bar)	1.6	6,1
	1.0	,75
1500 psi (103 bar)	1.6	6,1
	1.1	,12
2000 psi (138 bar)	1.5	,92
	2.0	,2
2500 psi (172 bar)	1.4	5,3
	3.0	2,24
rpm	500	1200
	1800	2400
	3000	

Input Horsepower (kW)



Flow gpm (l/min)



General Information — Typical Pump Performance

Operating Speeds (continued)

Minimum speed for the YC Series is 500 rpm. This is the normal minimum speed at which the pump will operate continuously at rated pressure. Consult QCC for operation outside these limits.

Operating Pressure Ratings

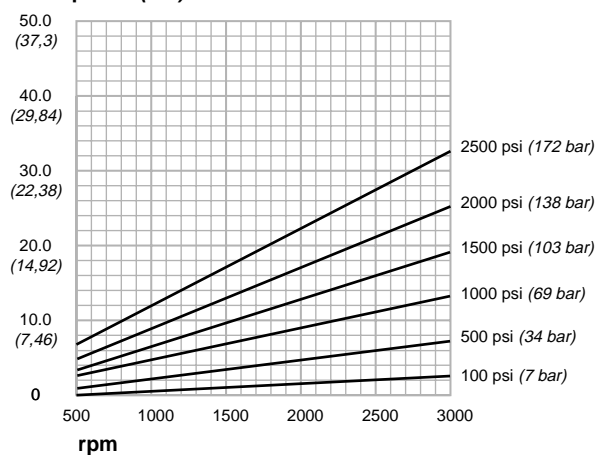
YC Series pumps are designed to operate continuously at the rated pressures shown on page 4. In most applications this maximum pressure should be considered the maximum relief valve setting. Lower operating pressures will extend the life of the unit. Maximum operating pressures decrease in the higher displacement pumps.

rpm hp	l/min kW	Flow Input	Flow Input
12.0	45,4	15.0	56,8
2.0	1,49	2.5	1,87
11.9	45,0	14.9	56,4
4.7	3,51	5.8	4,33
11.8	44,7	14.8	56,0
3.4	6,27	10.5	7,83
11.8	44,7	14.8	56,0
11.8	8,8	14.8	11,04
11.7	44,3	14.7	55,6
15.9	11,86	20.0	14,92
11.6	43,9	14.6	55,2
20.0	14,92	25.0	18,65
2400		3000	

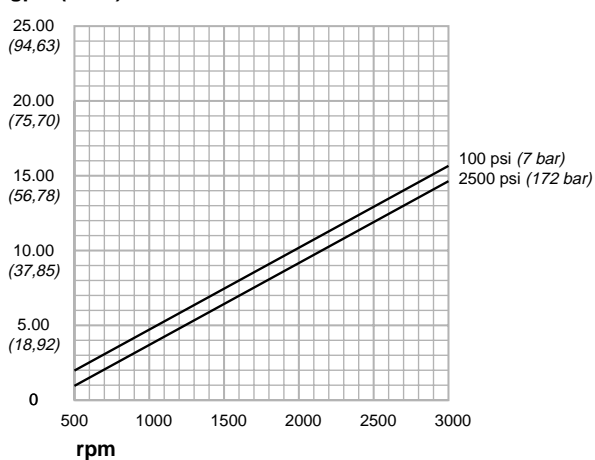
Model 125YC — Typical Performance Data

Pressure	Flow Input									
	rpm	500	1200	1800	2400	3000				
100 psi (7 bar)	3.0	11,4	6.5	24,6	9.9	37,5	13.0	49,2	16.0	60,5
	0.5	0,37	1.0	0,75	1.2	0,9	1.8	1,34	2.0	1,49
500 psi (34 bar)	2.8	10,6	6.4	24,2	9.8	37,1	12.8	48,4	15.8	59,8
	1.3	0,97	3.0	2,24	4.3	3,21	5.8	4,33	7.0	5,22
1000 psi (69 bar)	2.6	9,8	6.3	24,0	9.6	36,3	12.6	47,7	15.6	59,0
	2.2	1,64	5.0	3,73	7.6	5,67	10.0	7,46	12.5	9,33
1500 psi (103 bar)	2	9,1	6.2	23,5	9.4	35,6	12.4	46,9	15.4	58,3
	1.8	2,83	7.8	5,82	11.2	8,36	14.8	11,04	18.0	13,43
2000 psi (138 bar)	2.2	8,3	6.0	22,7	9.2	34,8	12.2	46,2	15.2	57,5
	4.8	3,51	10.3	7,68	15.0	11,19	20.0	14,92	24.7	18,43
2500 psi (172 bar)	2.0	7,5	5.8	21,9	9.0	34,0	12.0	45,4	15.0	56,8
	6.2	4,63	13.1	10,07	19.8	14,77	25.9	19,32	32.0	23,87
rpm	500	1200	1800	2400	3000					

Input Horsepower (kW)



Flow gpm (l/min)



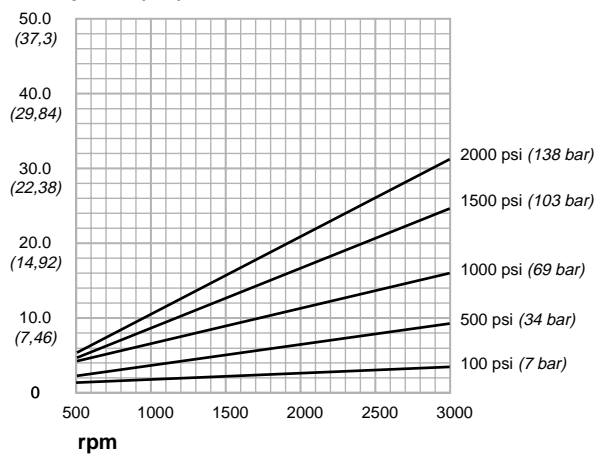
General Information — Typical Pump Performance

Model 194YC — Typical Performance Data

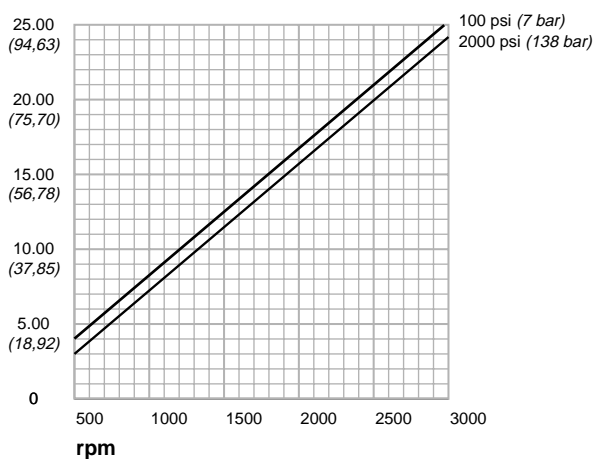
Flow gpm l/min	Input hp kW	Flow gpm l/min	Input hp kW
16.1 61,0	20.1 76,1	20.1 76,1	20.1 76,1
2.1 1,57	2.8 2,09	2.8 2,09	2.8 2,09
16.0 60,5	20.0 75,7	20.0 75,7	20.0 75,7
6.3 4,70	8.0 5,97	8.0 5,97	8.0 5,97
15.9 60,1	19.9 75,3	19.9 75,3	19.9 75,3
11.6 8,65	14.2 10,59	14.2 10,59	14.2 10,59
15.9 60,1	19.9 75,3	19.9 75,3	19.9 75,3
17.0 12,68	21.2 15,82	21.2 15,82	21.2 15,82
15.8 59,8	19.8 74,9	19.8 74,9	19.8 74,9
21.8 16,26	27.5 20,52	27.5 20,52	27.5 20,52
15.8 59,8	19.8 74,9	19.8 74,9	19.8 74,9
27.5 20,52	34.0 25,36	34.0 25,36	34.0 25,36
2400	3000	2400	3000

Pressure	500 rpm		1200 rpm		1800 rpm		2400 rpm		3000 rpm	
	gpm hp	l/min kW	gpm hp	l/min kW	gpm hp	l/min kW	gpm hp	l/min kW	gpm hp	l/min kW
100 psi (7 bar)	4.1	15,5	10.1	38,2	15.1	57,2	20.1	76,1	25.1	95,0
500 psi (34 bar)	1.0	0,75	1.8	1,34	2.0	1,49	2.8	2,09	3.0	2,24
1000 psi (69 bar)	4.0	15,1	10.0	37,9	15.0	56,8	20.0	75,7	25.0	94,6
1500 psi (103 bar)	1.8	1,34	3.8	2,83	5.5	4,1	7.3	5,44	9.3	6,94
2000 psi (138 bar)	3.9	14,8	9.9	37,5	14.9	56,4	19.9	75,3	24.9	94,2
	2.0	2,24	6.3	4,7	10.0	7,46	13.0	9,7	16.0	11,9
	3.0	2,24	9.9	37,5	14.9	56,4	19.9	75,3	24.9	94,2
	8.0	2,83	9.5	35,9	14.2	10,59	19.3	14,4	24.0	17,9
	3.8	2,83	9.8	37,1	14.8	56,0	19.8	74,9	24.8	93,8
	5.0	3,71	12.4	9,25	19.0	14,17	25.0	18,65	31.0	23,13
rpm	500	1200	1800	2400	3000					

**Input
Horsepower (kW)**



**Flow
gpm (l/min)**



Dimensions

	in.	(mm)
"A" Dimensions		
155YC	155YC	194YC
(149)	5.99 (152)	6.24 (158)
(152)	6.12 (155)	6.37 (162)
(158)	6.37 (162)	6.62 (168)
(162)	6.49 (165)	6.74 (171)
(165)	6.62 (168)	6.87 (174)
(171)	6.87 (174)	7.12 (181)
255YC	155YC	194YC
(163)	6.56 (167)	6.81 (173)
(170)	6.81 (173)	7.06 (179)
(170)	6.81 (173)	7.06 (179)
(176)	7.06 (179)	7.31 (186)
(182)	7.31 (186)	7.56 (192)
(189)	7.56 (192)	7.81 (198)
255YC	155YC	194YC
(170)	6.83 (173)	7.08 (180)
(173)	6.96 (177)	7.21 (183)
(172)	6.90 (175)	7.15 (182)
(173)	6.96 (177)	7.21 (183)
(175)	7.02 (178)	7.27 (185)
(178)	7.15 (182)	7.40 (188)
(181)	7.27 (185)	7.52 (191)
(186)	7.45 (189)	7.70 (196)
(191)	7.65 (194)	7.90 (201)
(197)	7.90 (201)	8.15 (207)

When sizing dual pumps, Maximum Pressure Units (MPU) cannot exceed a total of 5000 units. Total MPU's are calculated by adding together the in³/rev displacement times the maximum pressure (psi) of each pump section.

Example: 077/194 YC Dual
If the front section were to run at 2500 psi, the rear section should be limited to 1585 psi, computed as follows:

- 1st Section:
 $.77 \text{ in}^3/\text{rev} \times 2500 \text{ psi} = 1925 \text{ MPUs}$
- 5000 MPUs - 1925 = 3075 remaining MPUs for second section
- 2nd Section:
 $\frac{3075 \text{ MPUs}}{1.94 \text{ in}^3/\text{rev}} = 1585 \text{ psi maximum}$

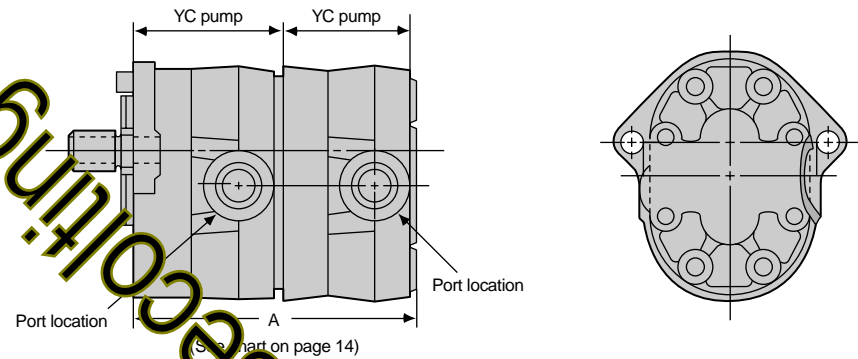
YC-YB Tandem Pumps

YC pumps can be combined with YB Series pumps in tandem to produce a dual pump with a wide range of displacements and pressures with two separate inlets and outlets. Lightweight YB pumps are available in six displacements from .15 to .73 in³/rev (2 to 12 cm³/rev) as shown in the chart at left. Consult factory for specific needs.

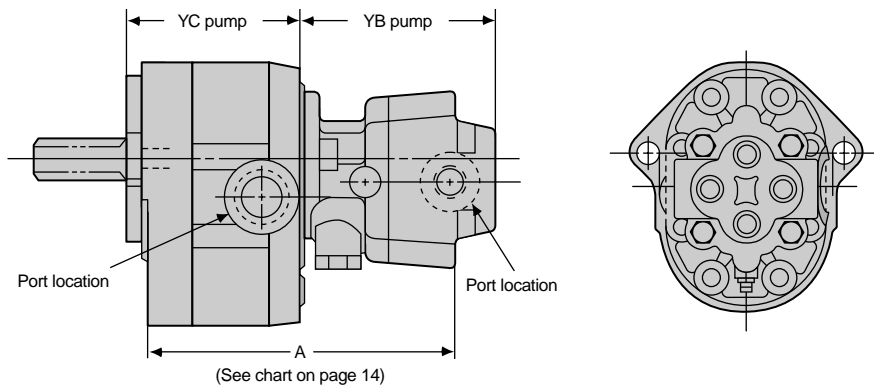
YC-B Tandem Pumps

YC pumps and Champion B pumps (Bulletin #FP20-19) can be combined to make tandem dual pumps with a common inlet and two outlets. Cast iron B pumps are available in ten sizes from .06 to .74 in³/rev (1 to 12 cm³/rev) as shown in the chart below. Consult the factory for your specific needs.

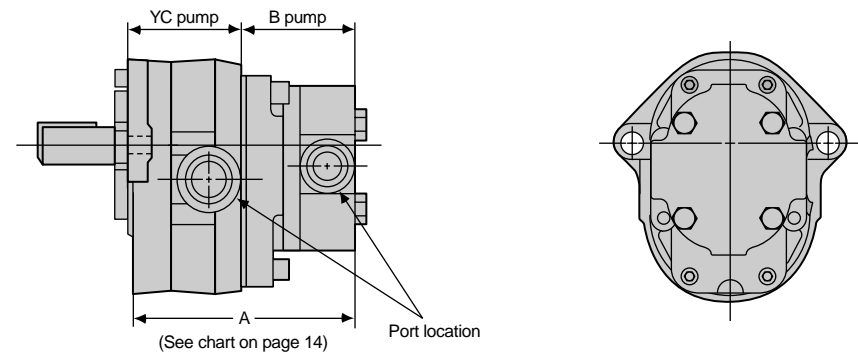
Dual YC Pump



YC/YB Tandem Pump



YC/B Tandem Pump



Dimensions

Bar Width in. (mm)

.375	(9,52)
.50	(12,70)
.75	(19,05)
.81	(20,57)
1.00	(25,40)
1.25	(31,75)

Multiplying displacement in³/rev

Speeds to 5000 rpm and
in six displacements from

symmetric and mechanical efficiency
construction with heat-treated
straight, keyed shaft;
rubber seals; and side SAE

continuous
continuous
continuous
continuous
continuous
continuous

mechanical seals –

Keyed shaft, standard.
(19 mm), 11-tooth splined

lip or fluoroelastomer

, leaded bronze

n, standard.
al.

Model	“A”		“B”	
	in.	(mm)	in.	(mm)
058YC	2.69	(68,33)	1.86	(47,24)
077YC	2.81	(71,37)	2.03	(51,56)
116YC	3.06	(77,72)	2.28	(57,91)
127YC	3.15	(80,01)	2.32	(58,93)
165YC	3.31	(84,07)	2.53	(64,26)
194YC	3.56	(90,42)	2.78	(70,61)

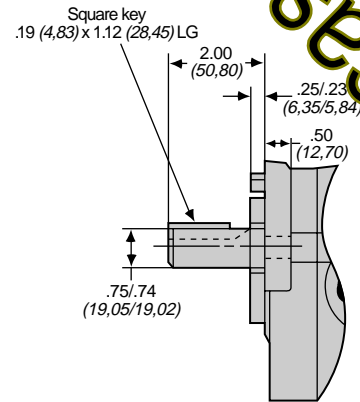
9-Tooth Spline Data

Number of teeth	9
Pitch	16/32
Pressure angle	30°
Major diameter	.625/.620 (15,875/15,748)
Minor diameter	.4835/.4725 (12,280/12,002)
Pitch diameter (ref.)	.5625 (14,287)

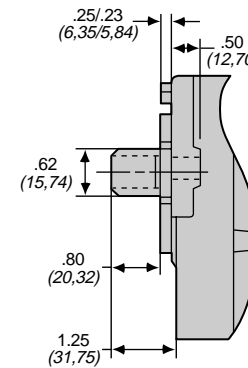
11-Tooth Spline Data

Number of teeth	11
Pitch	16/32
Pressure angle	30°
Major diameter	.748/.747 (18,999/18,974)
Minor diameter	.6085/.5975 (15,46/15,18)

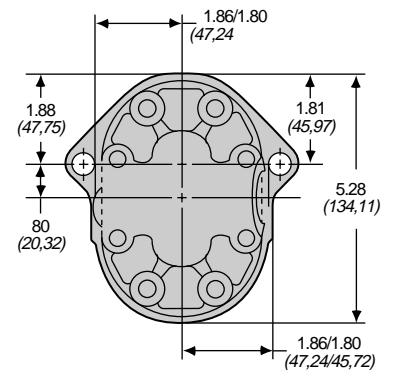
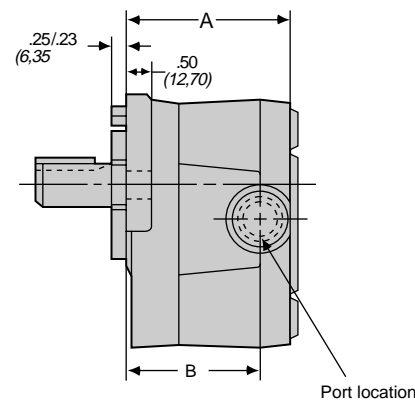
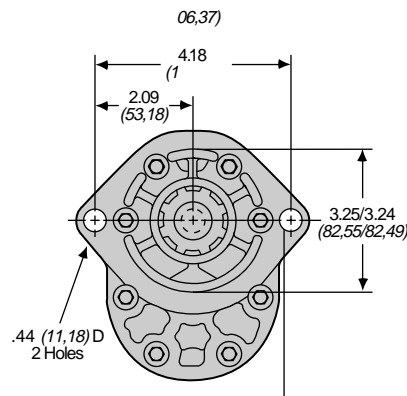
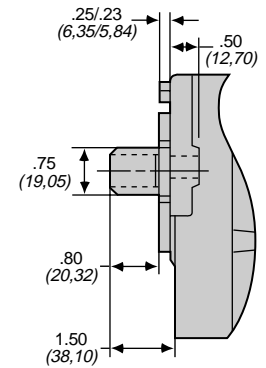
Straight key



Optional 9 tooth spline



Optional 11 tooth spline



rpm	Input Flow	Torque
gpm Lb-in N-m	l/min N-m	
10.9	41,3	13.6
22.4	2,53	9.6
11.2	42,4	13.9
68.0	7,68	57.6
11.3	42,8	14.0
116.8	13,2	105.6
11.6	00,0	14.4
168.0	18,98	158.4
11.7	44,3	14.4
208.8	23,59	200.0
4000		5000

Operating Temperatures (continued)

Another optional seal, the mechanical or rotary shaft seal is used in high pressure, high speed applications. Mechanical seals also tolerate higher back pressures. Consult the factory for your special needs.

Operating Speeds

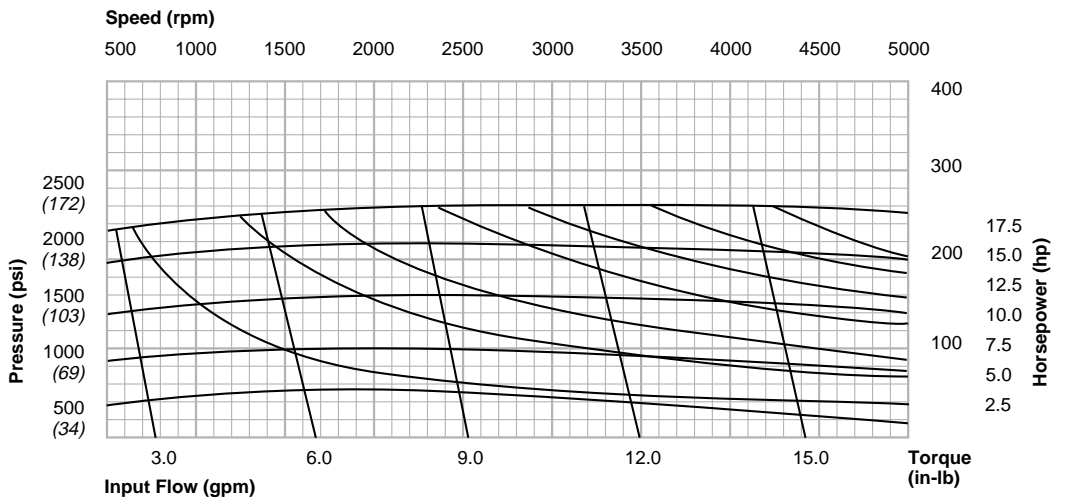
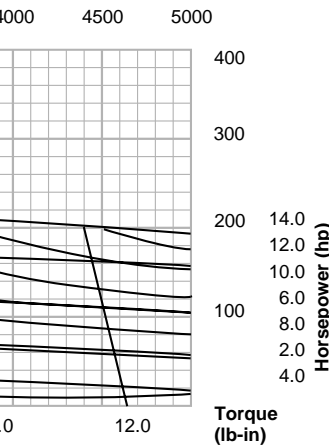
MYC motors have a maximum operating speed range up to 5000 rpm, based on operation at sea level using SAE oil with a viscosity of 130 SUS at 120°F (49°C). Actual limits for each displacement can be found in the motor performance curves. Minimum speed is 500 rpm. This is the normal minimum speed at which the motor will operate continuously at rated pressure. Consult factory for operation outside these limits.

Operating Pressure Ratings

MYC motors are designed to operate continuously at the rated pressures shown on page 16. Maximum operating pressures decrease in higher displacement motors.

Model M077YC — Typical Performance Data

Pressure	Input Flow									
	gpm	l/min	gpm	l/min	gpm	l/min	gpm	l/min	gpm	l/min
	Lb-in	N-m	Lb-in	N-m	Lb-in	N-m	Lb-in	N-m	Lb-in	N-m
500 psi (34 bar)	4.0	15,1	7.2	27,3	10.5	39,7	13.7	51,9	17.0	64,3
	43.0	4,86	41.0	4,63	35.0	3,95	28.0	3,16	12.0	1,36
1000 psi (69 bar)	4.0	15,1	7.3	27,6	10.8	40,9	14.0	53,0	17.4	65,9
	99.0	11,19	99.0	11,19	94.0	10,62	85.0	9,6	72.0	81,14
1500 psi (103 bar)	4.2	15,9	7.5	28,4	11.0	41,6	14.2	53,7	17.6	66,6
	158.0	17,85	160.0	18,08	158.0	17,85	146.0	16,5	132.0	14,92
2000 psi (138 bar)	4	17,0	7.8	29,5	11.2	42,4	14.5	54,9	18.0	68,1
	208.0	23,5	215.0	24,29	215.0	24,29	210.0	23,73	198.0	22,37
2500 psi (172 bar)	4.6	17,4	8.0	30,2	11.4	43,1	14.7	55,6	18.1	68,5
	250.0	28,2	270.0	30,51	268.0	30,28	261.0	29,49	250.0	28,25
rpm	1000	2000	3000	4000	5000					



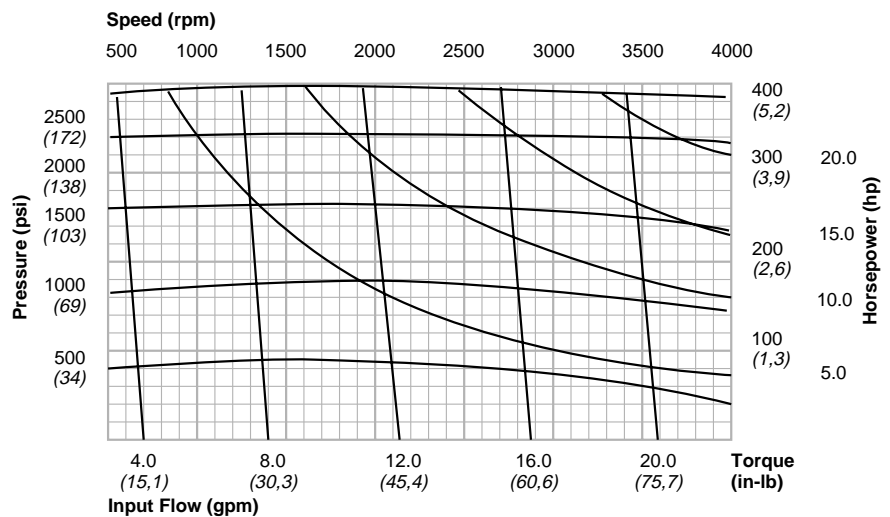
How to Use

Performance Curves

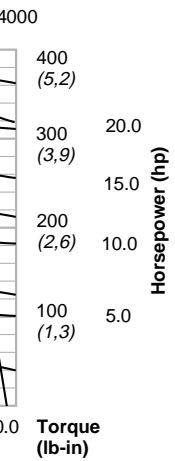
Performance curves show for MYC motors combined 5 related variables: pressure, speed, input flow, output torque, and horsepower output. If any two variables are known or assumed, the others can be determined. Compare the curves for all models and select the one which provides the best performance at desired speed and torque. Example: the application requires a motor producing 350 lb-inches (3,4 daNm) of torque at 1250 rpm. To discover the values for psi (bar), gpm (l/min), and hp, find and mark the intersection of 1250 rpm and 350 lb-inches (3,4 daNm) on the curve. The value of the remaining variables can be found by interpolation. In this case they would be 1250 psi (86 bar), 12 gpm (45,4 l/min) and 8 hp. Examine the motor curves for each displacement and choose the motor most suitable for the desired application.

Model M125YC — Typical Performance Data

Pressure	rpm				Input Flow Torque			
	1000	2000	3000	4000	gpm lb-in	l/min N-m		
500 psi (34 bar)	5.5	20,8	11.2	42,4	16.9	64,0	21.6	81,7
	85.7	9,68	80.4	9,08	66.4	7,5	45.0	5,08
1000 psi (69 bar)	6.2	23,5	11.5	43,5	17.1	64,7	22.2	84,0
	173.6	19,62	171.5	19,38	160.8	18,17	141.5	15,99
1500 psi (103 bar)	6.4	24,2	11.7	44,3	17.3	65,5	22.5	85,2
	263.7	29,8	262.6	29,67	257.2	29,06	235.8	26,64
2000 psi (138 bar)	6.6	25,0	12.2	46,2	17.6	66,6	23.0	87,1
	443	38,76	351.6	39,73	343.0	38,76	330.1	37,3
2500 psi (172 bar)	6.2	23,5	12.5	47,3	18.0	68,1	23.5	88,9
	396.6	44,81	418.0	47,23	414.8	46,87	396.6	44,81
rpm	1000	2000	3000	4000				



8	20.2	76,5
1	42.0	4,75
5	20.8	78,7
5	132.0	14,92
3	21.0	79,5
2	220.0	24,86
5	21.5	81,4
6	308.0	34,8
6	22.0	83,3
3	370.0	41,81
	4000	

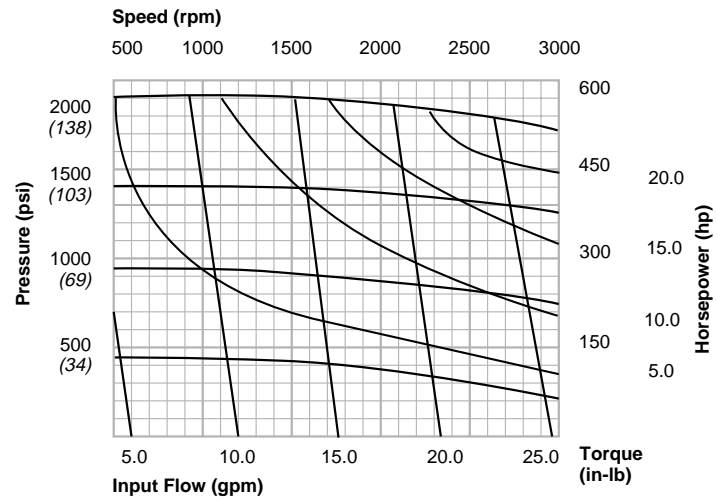
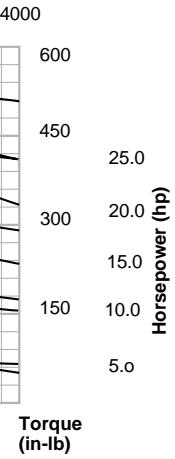


General Information — Typical Motor Performance

Model M194YC — Typical Performance Data

Pressure	gpm		l/min		Input Flow	
	lb-in	N-m	lb-in	N-m	Torque	
500 psi (34 bar)	8.8	33,8	17.2	65,1	25.6	96,9
	130.0	14,69	110.0	12,43	760	8,59
600 psi (69 bar)	9.5	36,0	17.8	67,4	26.2	99,2
	278.0	31,41	250.0	28,25	221.0	24,97
1500 psi (103 bar)	10.0	37,9	18.4	69,6	27.0	102,2
	422.0	47,68	330.0	46,33	380.0	42,94
2000 psi (138 bar)	11.5	39,7	19.0	72,0	28.0	106,0
	470	64,41	560.0	63,28	520.0	58,76
rpm	1000		2000		3000	

6	27.2	102.9
4	50.0	5.65
5	27.8	105.2
7	163.0	18.42
5	28.0	106.0
3	280.0	31.64
4	29.0	109.8
9	408.0	46.1
1	29.5	111.7
3	515.0	58.19
	4000	



Order Code

Hydraulic Fluids (continued)

Pour point is the lowest rate temperature at which a hydraulic fluid will flow. Because hydraulic pumps are often used on mobile equipment that may be exposed to very low outside temperatures, a low pour point is very important. Ideally, the fluid pour point should be at least 20° F (6,6° C) below the lowest expected outside temperature.

Hydraulic fluid in everyday use is constantly stressed by temperature changes, high pressures, oxidation, and contamination. Hydraulic fluid with *good stability characteristics* resists premature breakdown. At the same time, keeping the hydraulic fluid clean is probably the most essential aspect for ensuring the reliable performance of the system. Contamination is the leading cause of hydraulic system breakdowns. The system should always be filtered and the element should be regularly cleaned or replaced. When the fluid needs replacement, be sure to use a good grade of new, clean fluid.

The hydraulic fluid must be **compatible** with nitrile rubber sealing components. In addition, a good grade of hydraulic fluid will **contain additives** to help control wear, oxidation and foaming.

Please consult QCC before using any non-petroleum base or fire-resistant fluids which may require special seal materials.

5 Porting	
Without Flow Divider Unless Specified, Porting is in Cover	
01	3/4" NPTF (inlet) tank, 1/2" NPTF (outlet) pressure – (side)
02	1" NPTF(inlet) tank, 1/2" NPTF (outlet) pressure – (side)
17	1 1/16 - 12 SAE straight thread (inlet) tank, 7/8 - 14 SAE straight thread (outlet) pressure – (side)
21	1 3/16 - 12 SAE straight thread (inlet) tank, 7/8 - 14 SAE straight thread (outlet) pressure – (side)
23	1 1/16 - 12 SAE straight thread (inlet) tank, 7/8 - 14 SAE straight thread (outlet) pressure, both end ported
Without Flow Divider Unless Specified, Porting is in Cover	
35	1 1/16 - 12 SAE straight thread (inlet) tank, 1 1/16 - 12 SAE straight thread (outlet) pressure – (side)
41	1 5/16 - 12 SAE straight thread (inlet) tank, 1 1/16 SAE straight thread (outlet) pressure, both end ported
With Flow Divider Manifold	
11	1 3/16 - 12 SAE straight thread (inlet) tank, 7/8 - 14 SAE straight thread (outlets) priority and secondary – (side)

For code analysis and ordering of YC-YB and YC-B tandem pumps, consult QCC.

6 Shaft Extension	
00	No shaft extension (rear section dual)
01	.75" (19 mm) diameter straight keyed shaft, (2" [51 mm] extension) with .19" (4,82 mm) x 1.12 lg keyway
02	.62" (16 mm) diameter 9-tooth spline – (1.25" [32 mm] extension)
03	.75" (19 mm) diameter 11-tooth spline – (1.50" [38mm] extension)

7 Customer Variations	
Omit	Standard shaft seal
5	High pressure shaft seal with internal snap ring

8 Shaft Rotation (viewed from shaft end)	
L	Left hand
R	Right hand

9 Design Modification	
F	New body style incorporating retaining plate and "E" ring groove in body casting; also pressed in shaft seal and seal retainer in body. (Replaces D modification)
H	"E" ring loading plate incorporating retaining plate and "E" ring groove in casting (Standard dual assembly replaces "F" assemblies)
M	Same as "H" modification except using split driveshaft with serrated coupling

10 Relief Valve Setting	
Standard models with integral relief valve will be set at 1500 psi (103 bar). The code numbers represent valve settings multiplied by 1/100. Consult factory for other settings and availability.	

00		L	M
6	7	8	9

Gear Width in. (mm)

0.40	(10,16)
0.500	(12,70)
0.750	(19,05)
0.810	(20,57)
1.000	(25,40)
1.250	(31,75)

following the series
single digit call out

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