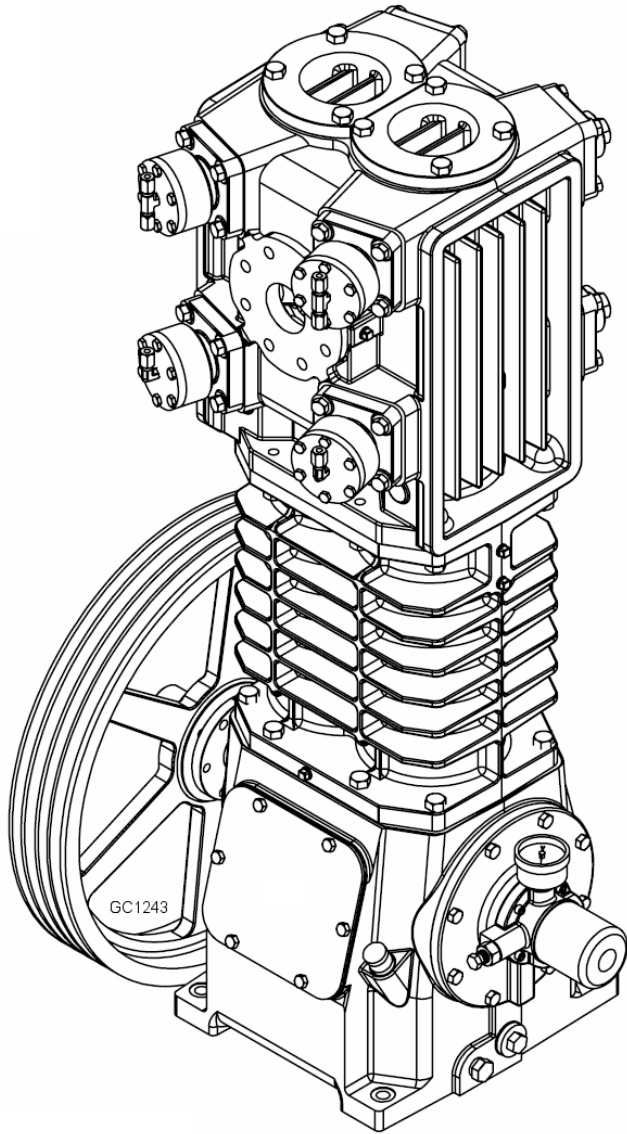


Natural Gas Vapor Recovery Compressors



Single-Stage

NG082 NG162 NG362
NG602 NG642 NG942

Two-Stage

NG172 NG372 NG612

- Vapor recovery
- Pressure boosting
- Natural gas
- Methane mix gases
- Well head
- Tank batteries
- 10 to 600 MSCFD
- 3 to 50 HP
- Ductile iron pressure parts
- Single compartment distance pieces
- Pressure lubricated crankcases
- Non-lubricated air-cooled cylinders

APPLICATIONS

Well Head Annulus Reduction

Many compressor applications are found at the wellhead where reducing the natural gas pressures around the annulus of the well increases the oil production. Blackmer's unique ability to handle a wide range of suction pressure conditions make them ideal for many wellhead applications.

Tank Battery Vapor Recovery

Environmental regulations are now being enforced that limit the amount of methane gas emissions that can be vented to the atmosphere from crude storage tanks. Blackmer's wide range of small frame sizes are an ideal fit for the small to mid size tank batteries that need VR control.

In either case, Blackmer NG compressors are standard with a full distance piece design allowing users to maintain maximum control of any fugitive emissions of methane gas, and minimize the potential of condensate into the compressor crankcase.

PERFORMANCE Single-Stage Models

Model NG082

Discharge		25	50	75	100	125	150	200	250
1 Suction	0	9 (2)	8 (2)						
	10	17 (2)	15 (3)	14 (3)	13 (3)				
	20	24 (1)	23(3)	22 (3)	20 (3)	18 (3)	18 (5)		
	30		30 (2)	29 (3)	28 (3)	27 (5)	25 (5)	26 (5)	
	40		38 (2)	36 (3)	35 (3)	34 (5)	33 (5)	30 (5)	28 (5)
	50			44 (3)	43 (3)	41 (5)	40 (5)	38 (5)	
	75				61 (3)	60 (3)	59 (5)	56 (5)	

Model NG162

Discharge		25	50	75	100	125	150	200	250
1 Suction	0	18 (3)	16 (3)						
	10	33 (3)	30 (5)	28 (5)	26 (5)				
	20	48 (2)	45 (5)	43 (5)	40 (5)	38 (5)	36 (7.5)		
	30		60 (3)	57 (5)	55 (5)	53 (7.5)	50 (7.5)	46 (7.5)	
	40		75 (3)	72 (5)	70 (5)	67 (7.5)	65 (7.5)	60 (7.5)	55 (7.5)
	50			87 (5)	85 (5)	82 (7.5)	79 (7.5)	75 (7.5)	
	75				122 (5)	120 (5)	117 (7.5)	112 (7.5)	

Model NG362

Discharge		25	50	75	100	125	150	200	250
Suction	0	39 (5)	34 (7.5)						
	10	70 (5)	65 (7.5)	60 (7.5)	56 (10)				
	20	102 (5)	96 (7.5)	91 (7.5)	86 (10)	82 (10)	77 (15)		
	30		128 (5)	123 (7.5)	117 (10)	112 (10)	108 (15)	98 (15)	
	40		160 (5)	154 (7.5)	149 (10)	144 (15)	139 (15)	129 (15)	119 (15)
	50			186 (7.5)	181 (10)	175 (15)	170 (15)	160 (15)	
	75				261 (7.5)	255 (10)	250 (15)	239 (15)	

Model NG602

Discharge		25	50	75	100	125	150	200	250
Suction	0	64 (10)	53 (10)						
	10	122 (10)	109 (15)	96 (15)	85 (15)				
	20	180 (7.5)	166 (15)	153 (15)	140 (15)	128 (20)	116 (20)		
	30		224 (10)	210 (15)	197 (20)	184 (20)	172 (20)	147 (25)	
	40		283 (10)	269 (15)	255 (20)	241 (20)	228 (20)	203 (25)	178 (25)
	50			327 (15)	313 (15)	299 (20)	285 (25)	259 (25)	234 (30)
	75				461 (15)	446 (20)	431 (20)	403 (30)	375 (30)

Model NG942

Discharge		25	50	75	100	125	150	200	250
Suction	0	127 (15)	107 (15)						
	10	236 (15)	214 (20)	193 (25)	173 (25)				
	20	348 (10)	324 (20)	301 (25)	279 (30)	258 (30)	238 (30)		
	30		435 (15)	411 (25)	388 (30)	366 (40)	344 (40)	302 (40)	
	40		547 (15)	522 (25)	498 (30)	475 (40)	452 (40)	409 (50)	367 (50)
	50			634 (20)	609 (30)	585 (40)	561 (40)	516 (50)	473 (50)
	75				891 (20)	865 (30)	840 (40)	791 (50)	



PERFORMANCE Two-Stage Models

Model NG172

Discharge		75	100	150	200	275	350	425	500
1 Suction	0	8.4 (3)	8.3 (3)	8.0 (3)					
	10			14 (3)	14 (5)	13 (5)			
	20				20 (5)	19 (5)	19 (5)		
	30					26 (5)	25 (5)	25 (5)	24 (7.5)
	40					32 (5)	31 (7.5)	31 (7.5)	30 (7.5)
	50						37 (7.5)	37 (7.5)	36 (7.5)

Model NG372

Discharge		75	100	150	200	250	300	375	475
1 Suction	0	25 (5)	25 (7.5)	24 (7.5)					
	10			42 (7.5)	41 (10)	41 (10)			
	20				59 (10)	58 (10)	58 (15)	57 (15)	
	30					76 (15)	75 (15)	74 (15)	73 (15)
	40						93 (15)	92 (15)	
	50							110 (15)	

Model NG612

Discharge		75	100	150	200	250	300	350	400
1 Suction	0	54 (15)	53 (15)	52 (15)					
	10			90 (20)	89 (20)	87 (20)			
	20				127 (20)	125 (25)	124 (25)	122 (25)	121 (25)
	30					163 (25)	162 (25)	160 (30)	159 (30)
	40						200 (30)	198 (30)	197 (40)

Suction and Discharge pressures are PSIG.

Tables read in MSCFD (Motor H.P.) and are based on a compressor speed of 740 RPM.

Capacity and horsepower based on natural gas with an "N" value of 1.15 and a specific gravity of 1.54 at 70°F.

See CB-174 for performance on pipeline gas.

Sweet Gas (10 ppm max. H₂S) only. For sour gas applications; see CB-311 re 'NGS' Series.

Use tables for estimating only. Consult Factory for detailed performance data.



STANDARD FEATURES

Ductile Iron Head & Cylinder provide toughness & strength unmatched by cast iron.

O-Ring head gaskets provide positive sealing under all operating conditions.

Double-Seal with full size distance piece.

One piece steel pistons are attached to the piston rod via one positive locking nut.

Self-adjusting PTFE piston rod seals provide maximum sealing & minimum friction.

Ductile Iron crossheads

Pressure lubricated crankcase via a self-reversing oil pump directly driven by the crankshaft. Oil is fed to the crosshead and all bearing surfaces.

External Oil Filter.

Epoxy paint.

OPTIONS

Stainless Steel Valves – all models except the NG162 and NG172.

Suction Valve Unloaders – all models.

Sour Gas Trim – all models, see CB-311 describing the 'NGS' Series.

For additional material options or extended range of performance, consider the Blackmer HD series compressors.

TYPICAL MOUNTING STYLES

-CO Compressor with flywheel.

-B Compressor mounted on a baseplate with V-belt drive system with guard and motor slide base ready to accept but less motor.

Complete system packaging for the oil and gas market is typically provided by the Distributor, OEM or System Integrator.



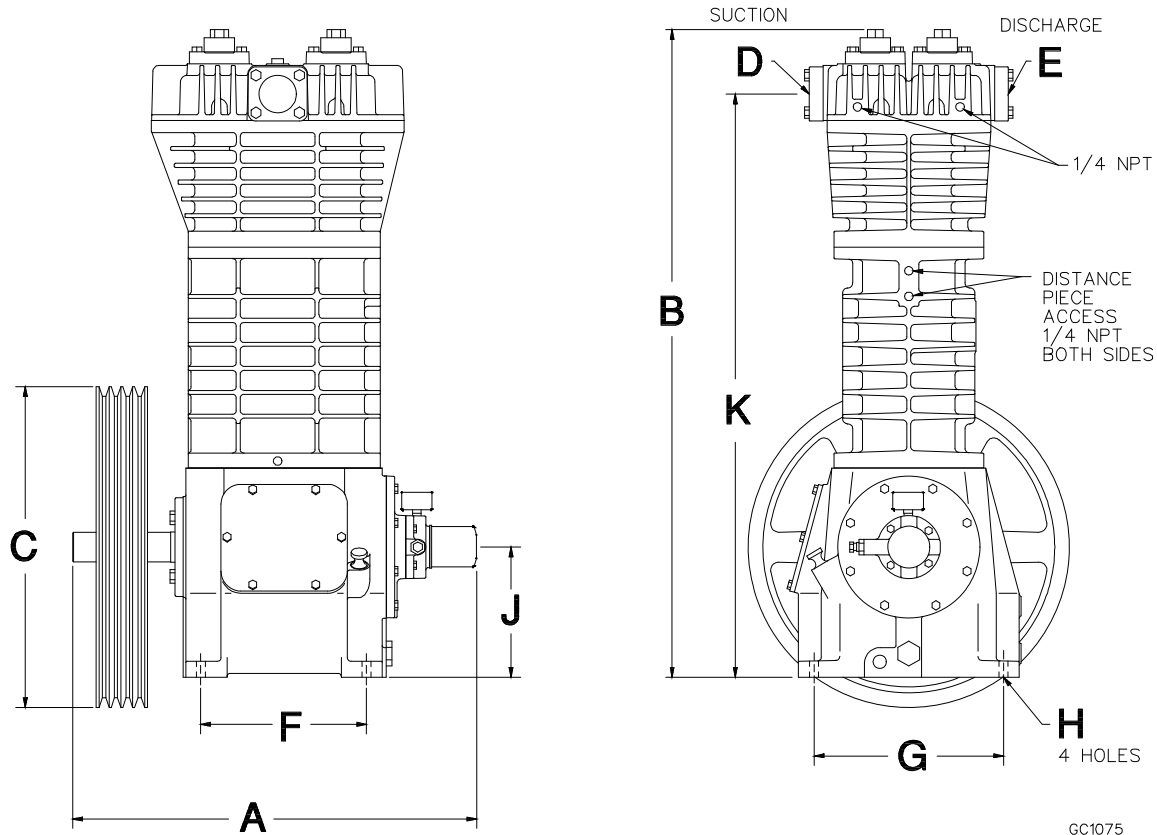
SPECIFICATIONS

Single-Stage	NG082	NG162	NG362	NG602	NG642	NG942
No. of Cylinders	1	2	2	2	2	2 Double Acting
Bore x Stroke in. (mm)	3.0 x 2.5 (76.2 x 63.5)	3.0 x 2.5 (76.2 x 63.5)	4.0 x 3.0 (102 x 76)	4.625 x 4.0 (117 x 102)	3.25 x 4.0 (82.5 x 102)	4.625 x 4.0 (117 x 102)
MAWP, psia (Bar)	350 (24.1)	350 (24.1)	350 (24.1)	350 (24.1)	515 (35.5)	350 (24.1)
Speed, rpm	350 - 825	350 - 825	350 - 825	350 - 825	350 - 825	350 - 825
Piston Displacement, CFM (m ³ /hr)						
@ Min rpm	3.58 (6.1)	7.16 (12.2)	15.3 (26.0)	27.2 (46.3)	13.4 (22.8)	52.46 (89.1)
@ Max rpm	8.45 (14.35)	16.9 (28.7)	36.0 (61.2)	64.2 (109.0)	31.7 (53.8)	125.2 (212)
Max. Discharge Temp.	350°F (176°C)	350°F (176°C)	350°F (176°C)	350°F (176°C)	350°F (176°C)	350°F (176°C)
Max. BHP (kw)	7.5 (5)	10 (7.5)	15 (11)	40 (30)	40 (30)	50 (37)
Weight, lb. (kg)	~215 (97)	~225 (102)	~365 (166)	~705 (320)	~725 (329)	~905 (410)
Inlet / Outlet Connections *	0.75" NPT	0.75" NPT	1.50" NPT or Weld Flanges	2.00", 1.50" NPT or Weld Flanges	2.00", 1.50" NPT or Weld Flanges	2" 300# ANSI

Two-Stage	NG172	NG372	NG612
No. of Cylinders	2	2	2
Bore – Stage 1 in. (mm)	3.0 (76.2)	4.63 (117)	6.0 (152)
Bore – Stage 2 in. (mm)	1.75 (44.5)	2.69 (68)	3.25 (83)
Stroke in. (mm)	2.5 (63.5)	3.0 (76)	4.0 (102)
MAWP, psia (Bar)	615 (42.4)	615 (42.4)	415 (28.6)
Speed, rpm	350 - 825	350 - 825	350 - 825
Piston Displacement, CFM (m ³ /hr)			
@ Min rpm	3.57 (6.07)	10.2 (17.3)	22.9 (38.9)
@ Max rpm	8.42 (14.3)	24.1 (40.8)	53.7 (91.2)
Piston rod dia. - in. (mm)	0.75 (19.1)	0.75 (19.1)	1.25 (31.8)
Max. Discharge Temp.	350°F (176°C)		
Max. BHP (kw)	10 (7.5)	15 (11)	40 (30)
Weight, lb. (kg)	~245 (111)	~405 (184)	~775 (352)
Inlet / Outlet Connections	0.75" NPT	1.25" x 1" NPT	2", 1.5" NPT or Weld



DIMENSIONS



In. (mm)

Model	A	B *	C	D	E	F	G	H	J	K
NG082	20.23 (514)	30.2 (767)	16.35 (415)	0.75" NPT ¹	0.75" NPT ¹	6.28 (160)	7.38 (187)	0.44 (11)	5.38 (137)	27.4 (695)
NG162	21.9 (556)	29.7 (754)	16.35 (415)	0.75" NPT ¹	0.75" NPT ¹	7.5 (190)	7.38 (187)	0.44 (11)	5.38 (137)	27.34 (694)
NG362	23.4 (594)	34.39 (874)	16.35 (415)	1.5" NPT or Weld	1.5" NPT or Weld	9.12 (232)	9.37 (238)	0.5 (12.7)	5.88 (149)	30.81 (783)
NG602	25.6 (650)	40.77 (1036)	19.5 (495)	2" or 1.5" NPT or Weld	2" or 1.5" NPT or Weld	10.5 (267)	12.0 (305)	0.56 (14.2)	8.25 (210)	36.99 (940)
NG942	25.6 (650)	45.23 (1,149)	21.20 (538)	2" 300# ANSI	2" 300# ANSI	10.5 (267)	12.0 (305)	0.56 (14.2)	8.25 (210)	37.65 (956)
NG172	21.9 (556)	29.7 (755)	16.35 (415)	0.75" NPT ¹	0.75" NPT ¹	7.5 (190)	7.38 (187)	0.44 (11)	5.38 (137)	27.37 (695)
NG372	23.4 (594)	34.7 (880)	16.35 (415)	1.25" NPT ¹	1" NPT ¹	9.12 (232)	9.37 (238)	0.5 (12.7)	5.88 (149)	30.79 (782)
NG612	26.4 (671)	41.3 (1,204)	20.35 (517)	2" or 1.5" NPT or Weld	2" or 1.5" NPT or Weld	10.5 (267)	12.0 (305)	0.56 (14.2)	8.25 (210)	37.22 (1,101)

1. Tapped connections in head.

