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## INTRODUCTION

Yeomans Series 7000 air compressors and dry vacuum pumps are the ideal choice for air requirements up to 300 c.f.m. and pressures up to 50 p.s.i. or for moderate vacuums up to 27 inches of mercury (or 95% of barometric pressure).

The rotary multi-vane design produces a continuous positive flow without the discharge pulsations typically found in reciprocating equipment. Operation is quiet; there are no valves, reciprocating parts or other vibration producing equipment.

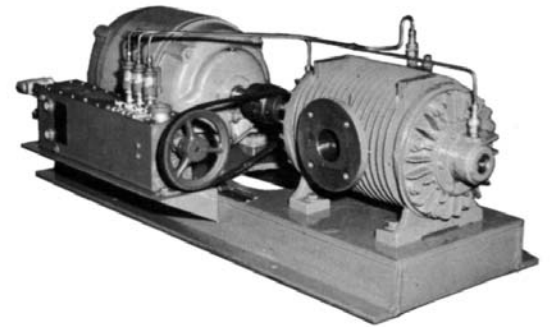
The rugged design assures long, reliable service life. Rotors, cylinders, end plates and bearing caps are made of cast iron. The turned, ground and polished alloy steel shaft is pressed into the rotor and secured by pins. All fan cooled units have ball or needle bearings. All air cooled and water cooled units are furnished with roller bearings.

As the rotor turns, the sliding vanes are forced out to the cylinder wall by centrifugal force. Efficient performance is maintained by this automatic adjustment of the vanes to continually compensate for any wear.

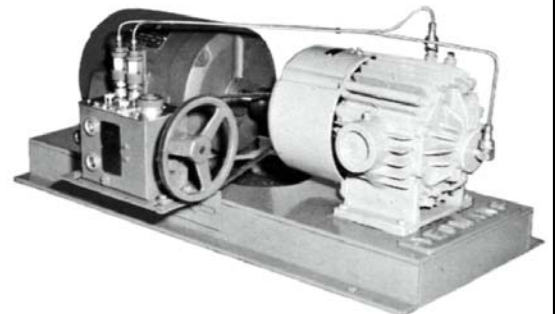
Simplicity of design results in lower initial cost and a minimum of operating cost. The only maintenance required is to make sure that the lubricator is filled and that the unit is periodically inspected for the condition of the vanes. The vanes are made of tough, nonmetallic and noncorrodible material. Both vanes and cylinder walls wear extremely slowly.

All compressors are supplied with mechanical seals to assure positive sealing. Problems commonly associated with stuffing boxes are eliminated.

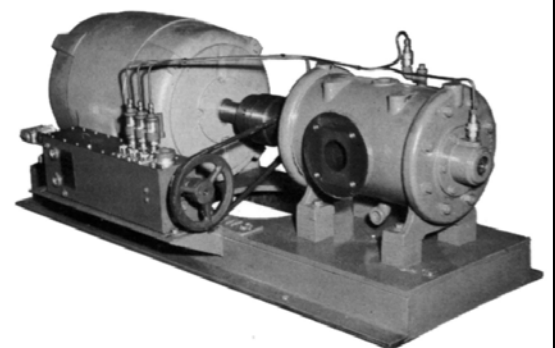
Yeomans compressors and vacuum pumps have grease or oil lubricated anti-friction bearings and oil lubricated cylinders and vanes. The lubricator operates when the compressor is running to insure thorough, positive oil lubrication at all times. Oil flow is adjustable to fit each individual application which eliminates oil waste.



Air Cooled



Fan Cooled



Water Cooled

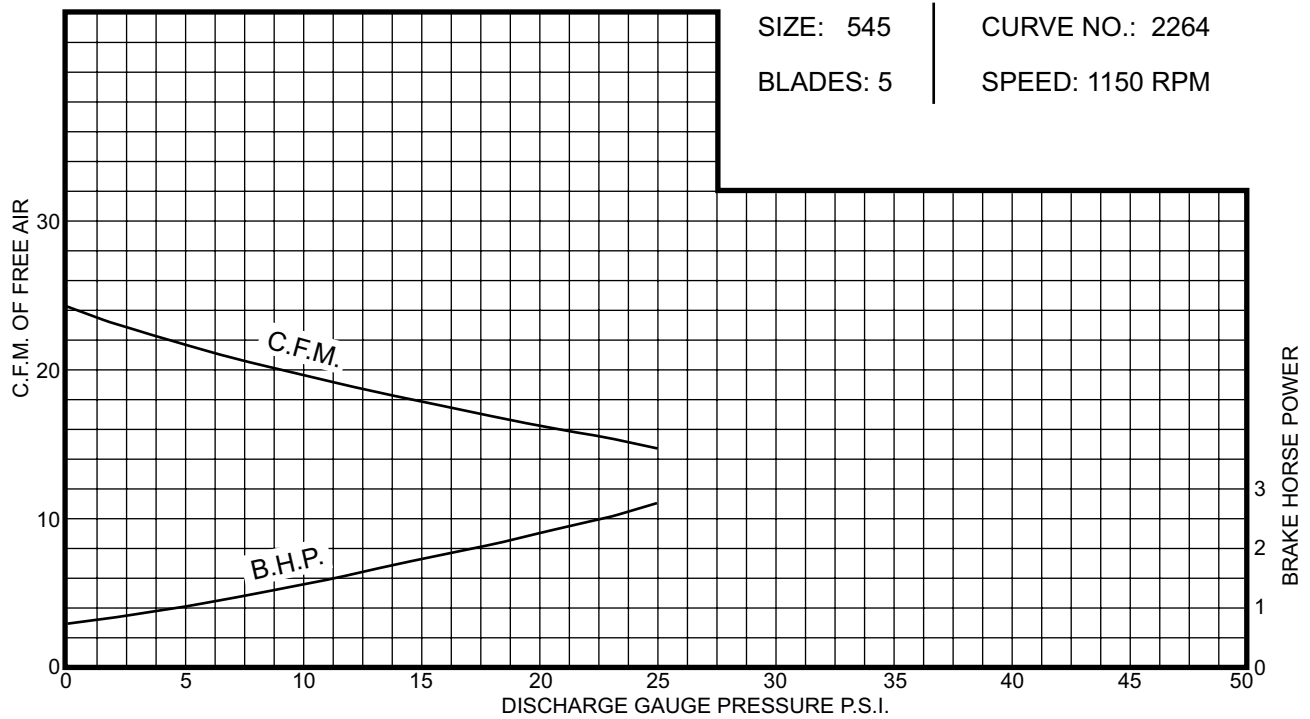
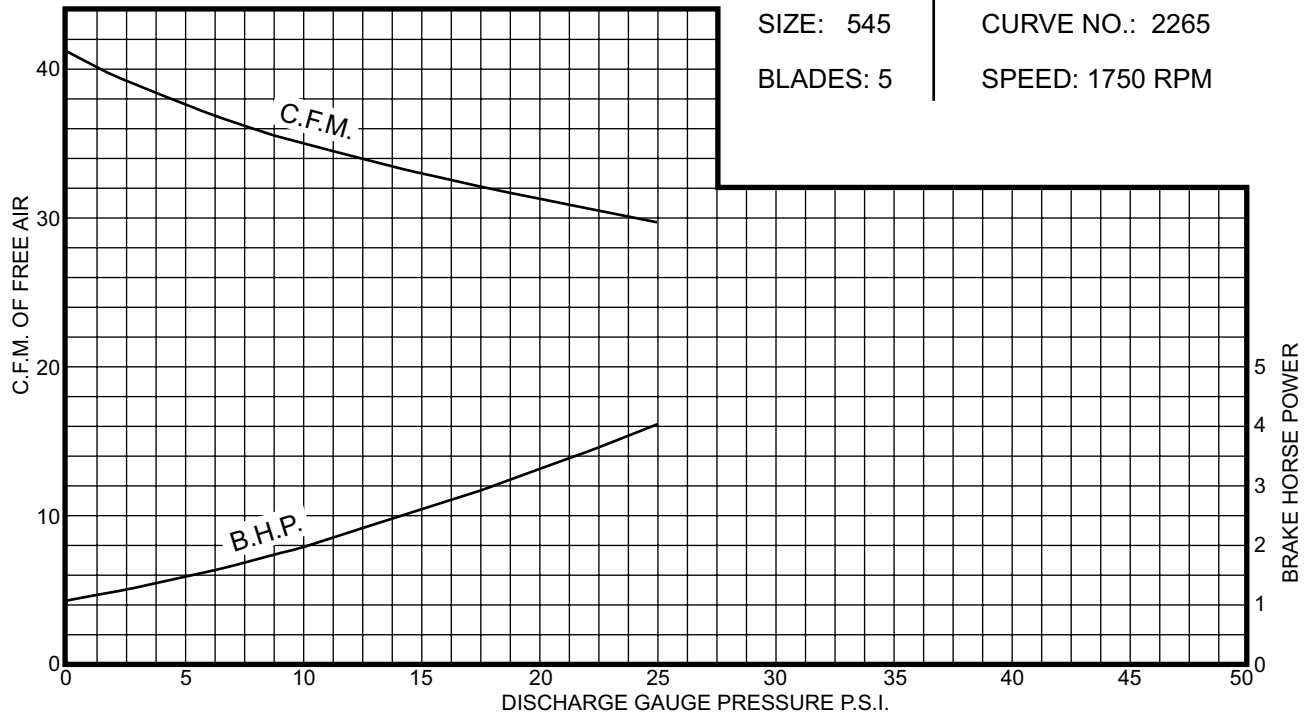




**SERIES 7000**

**AIR COMPRESSORS  
AIR COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.



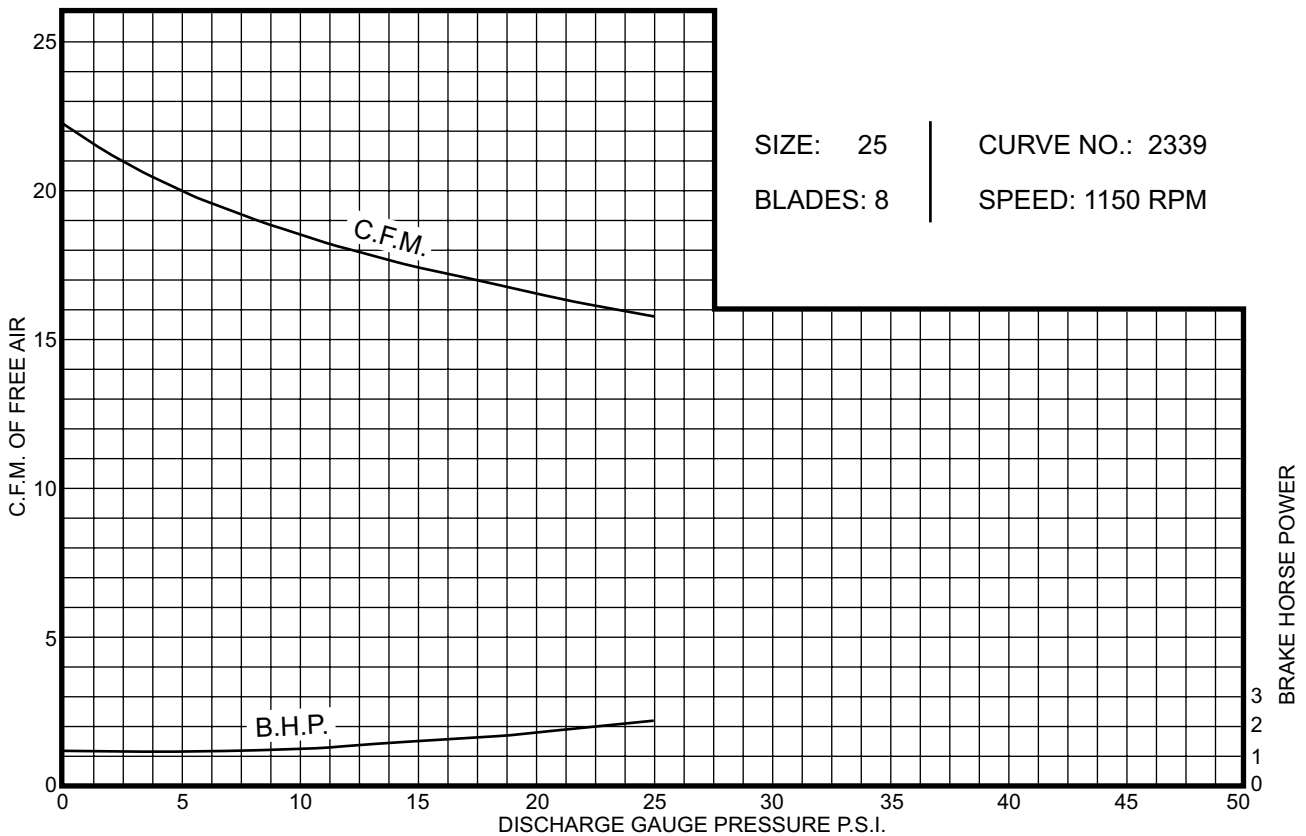
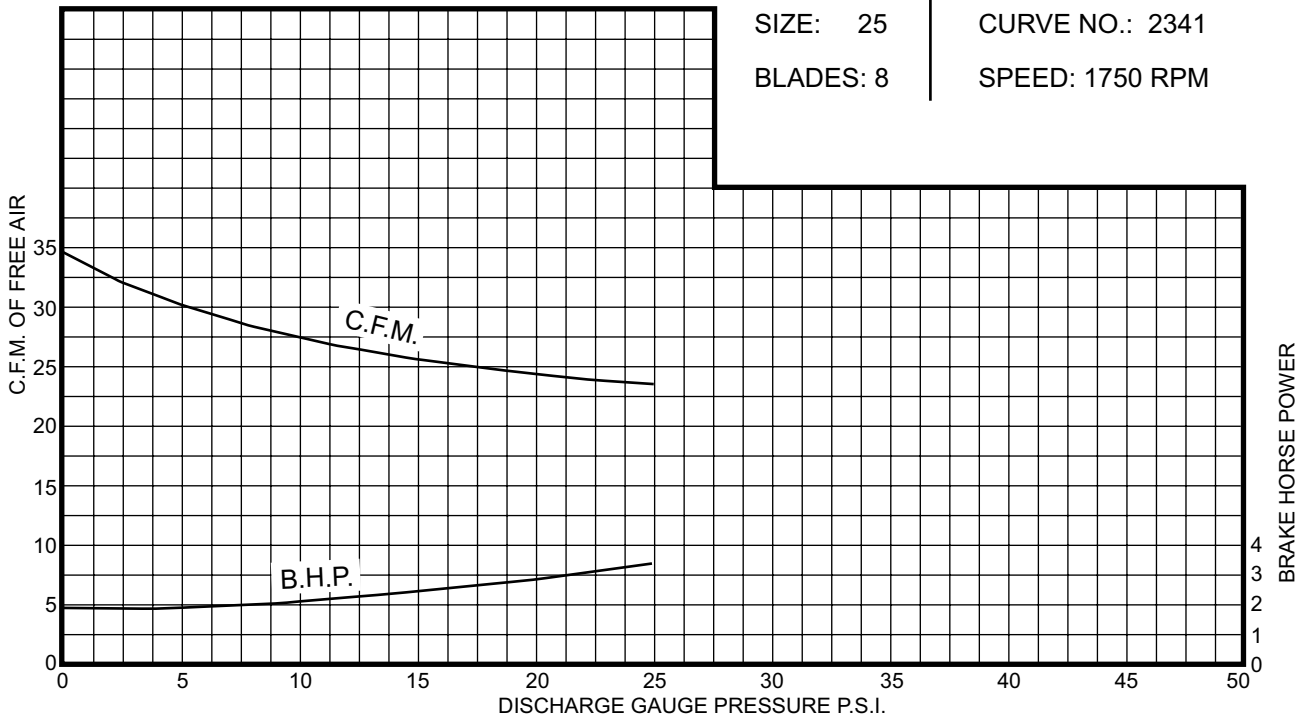




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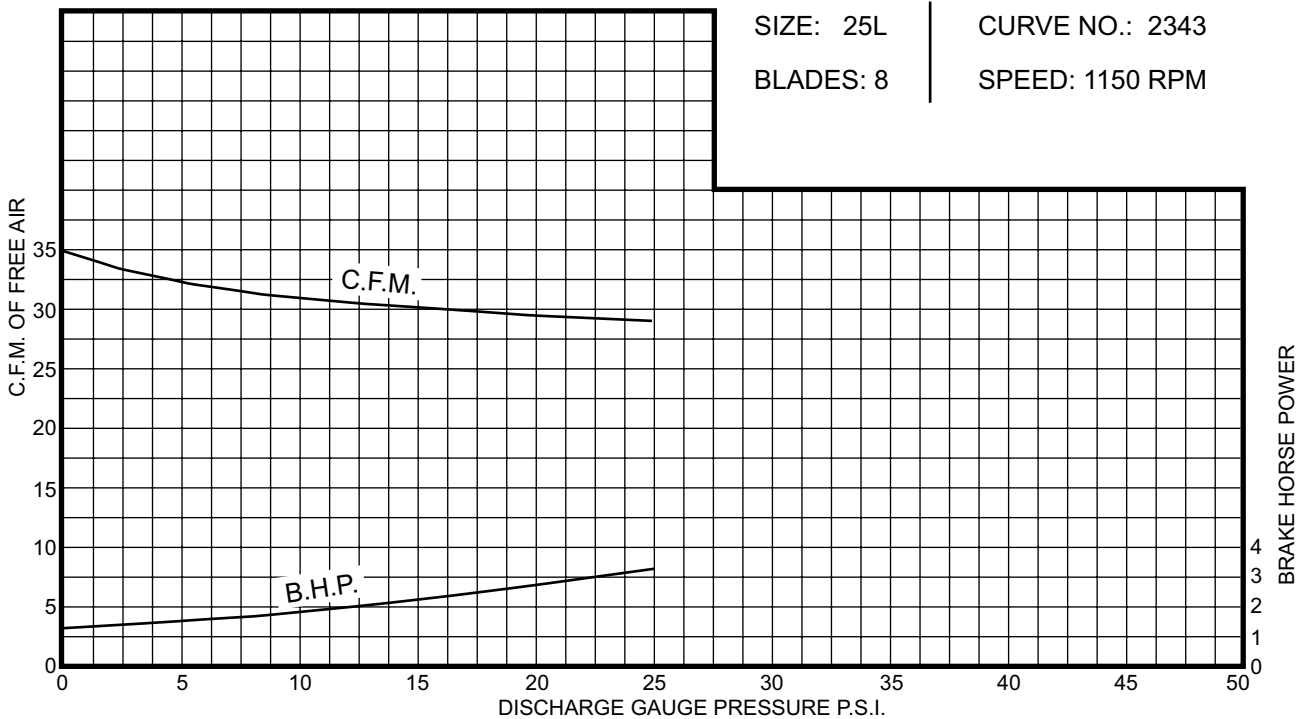
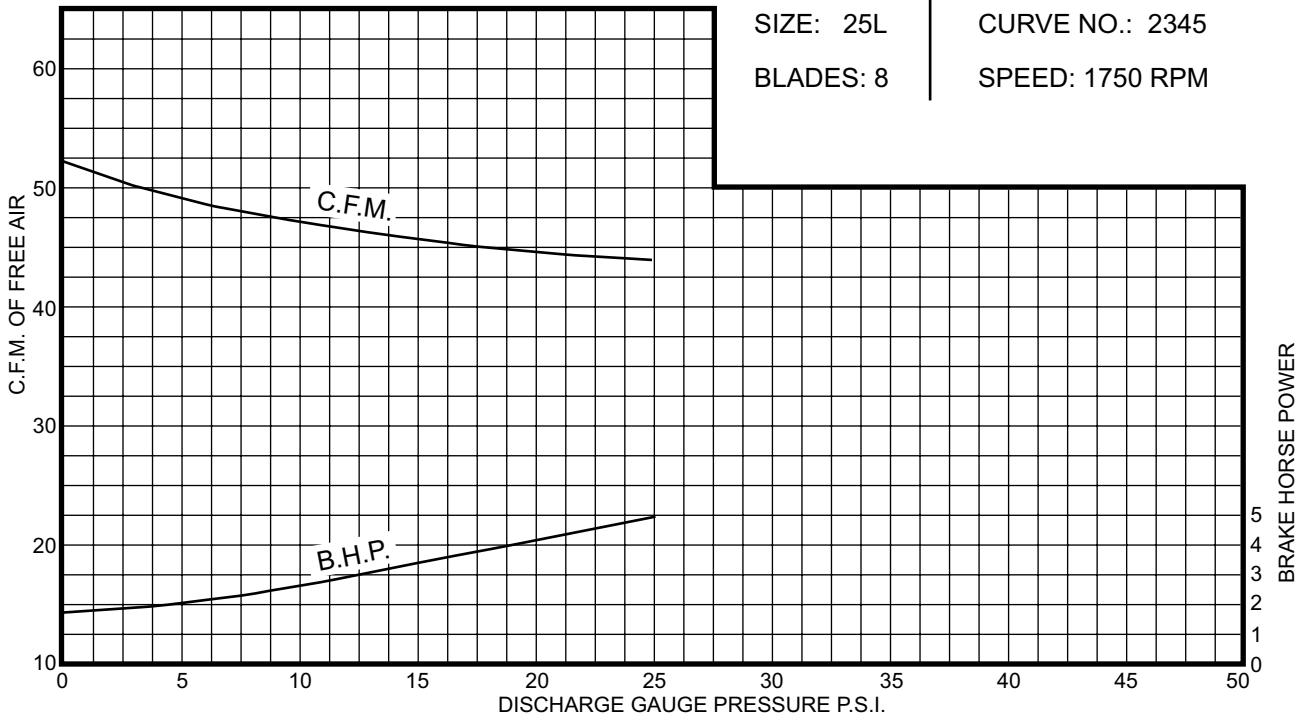




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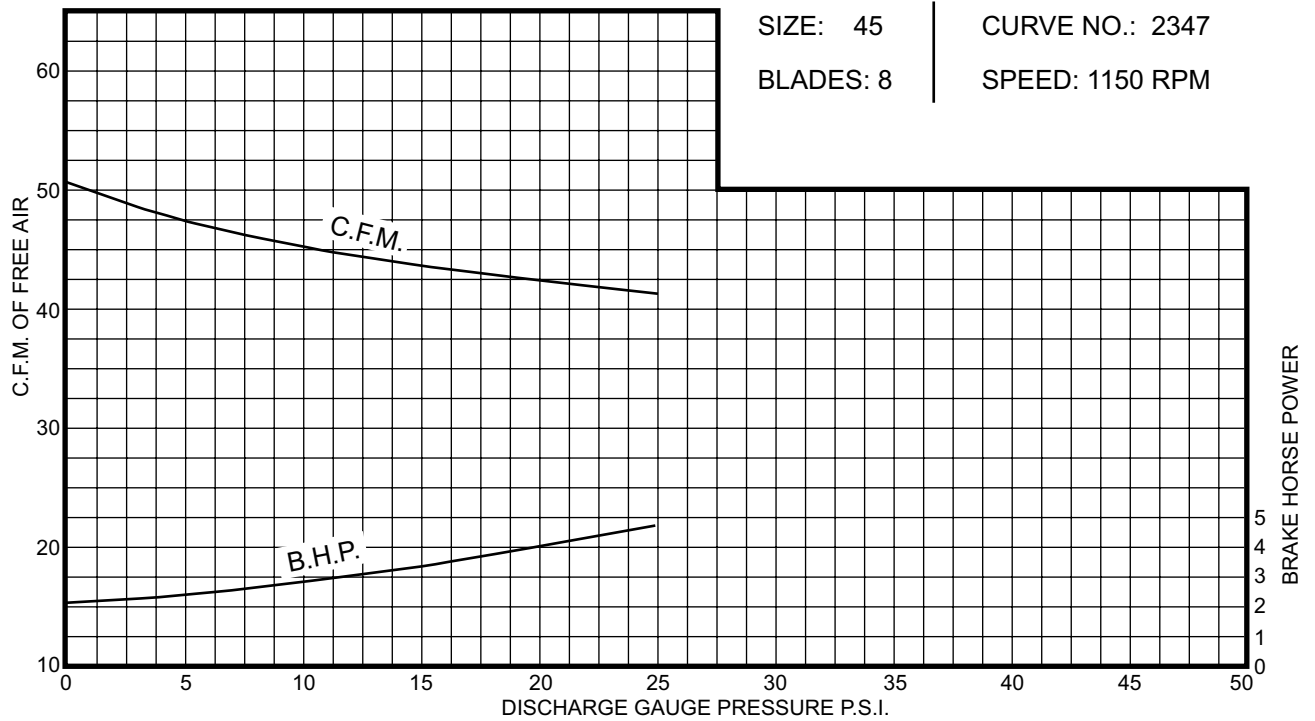
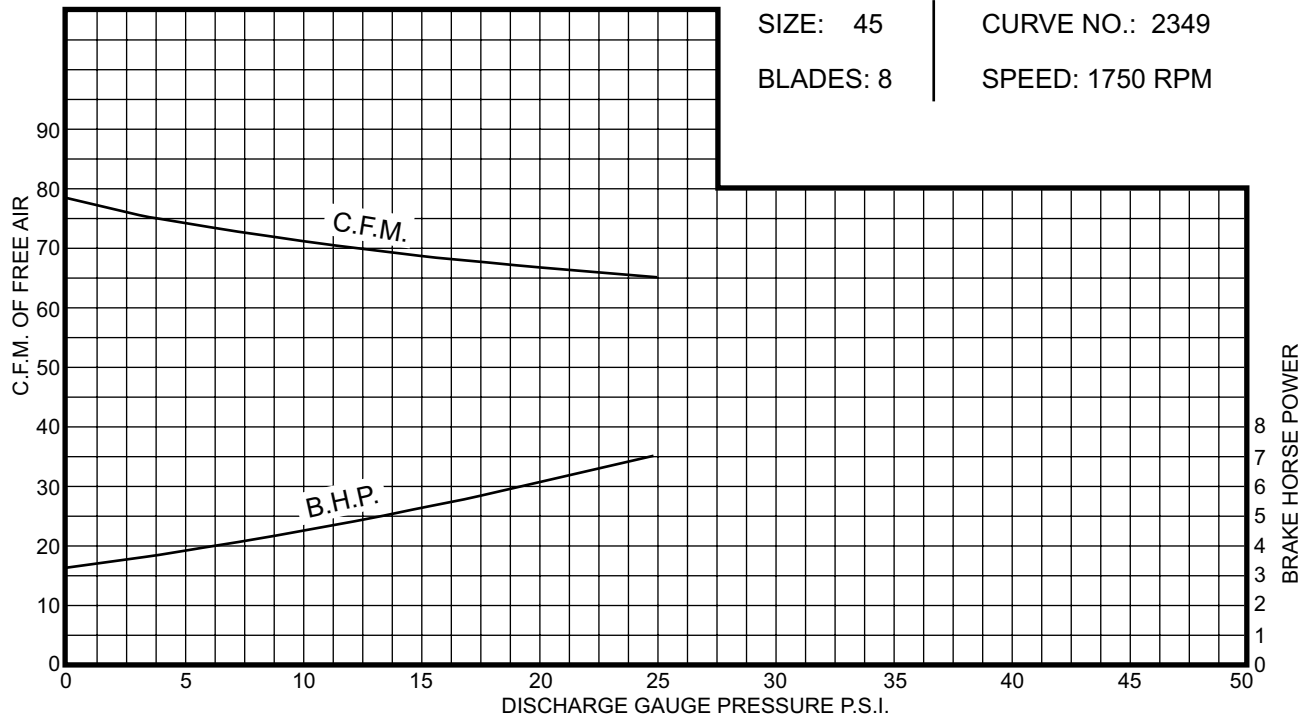




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AIR COOLED  
PERFORMANCE CURVES**

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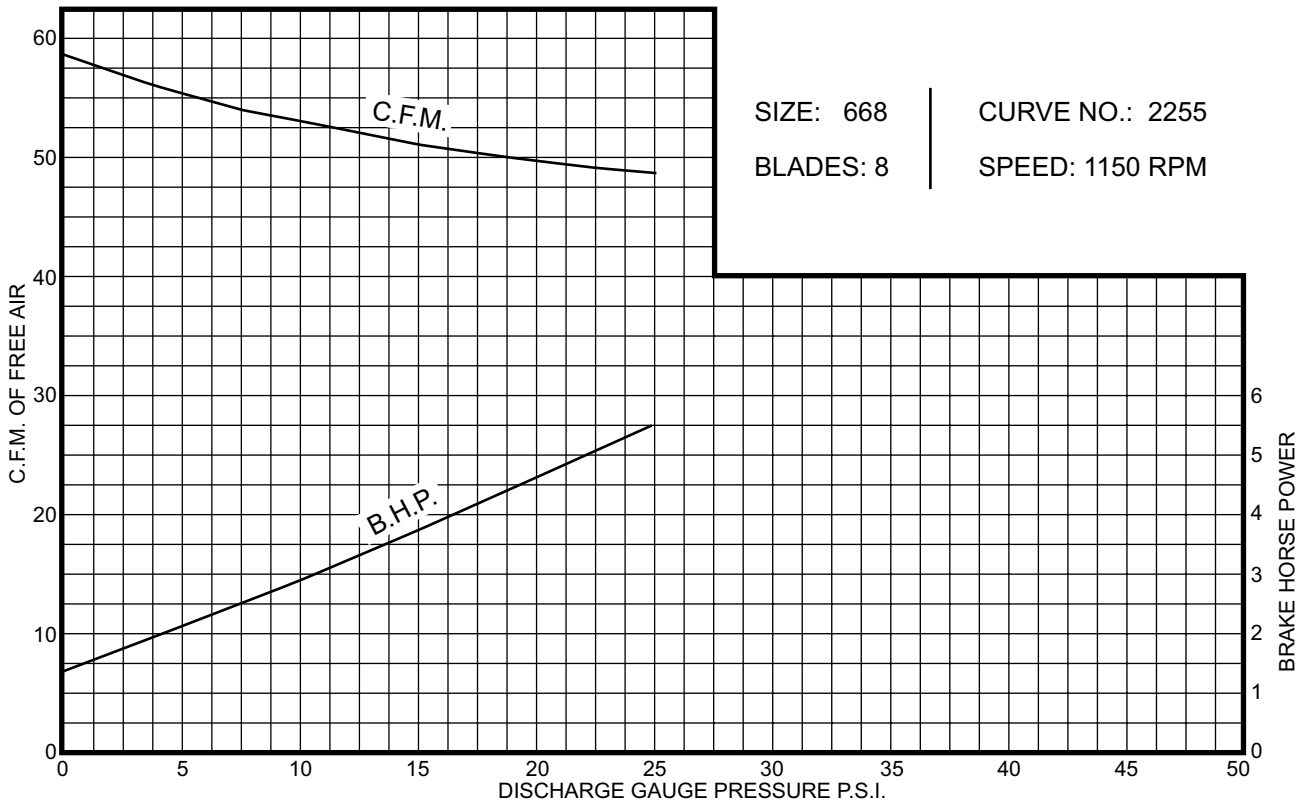
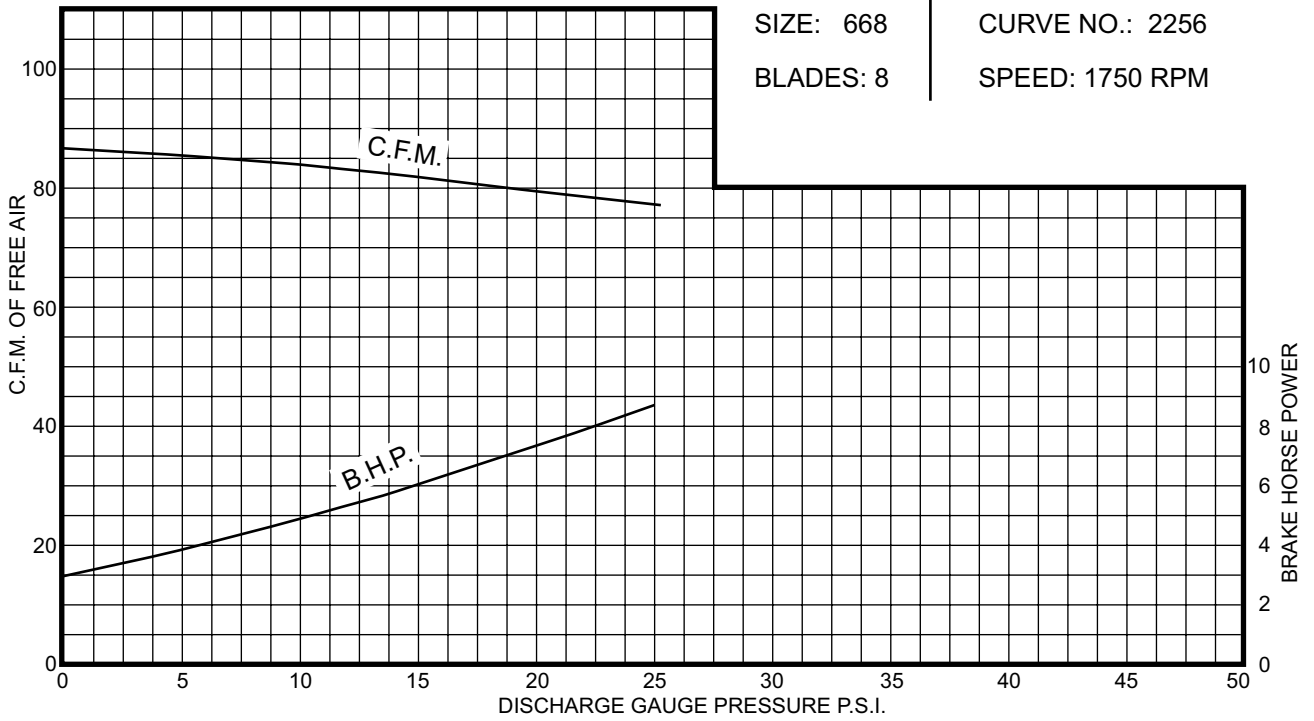




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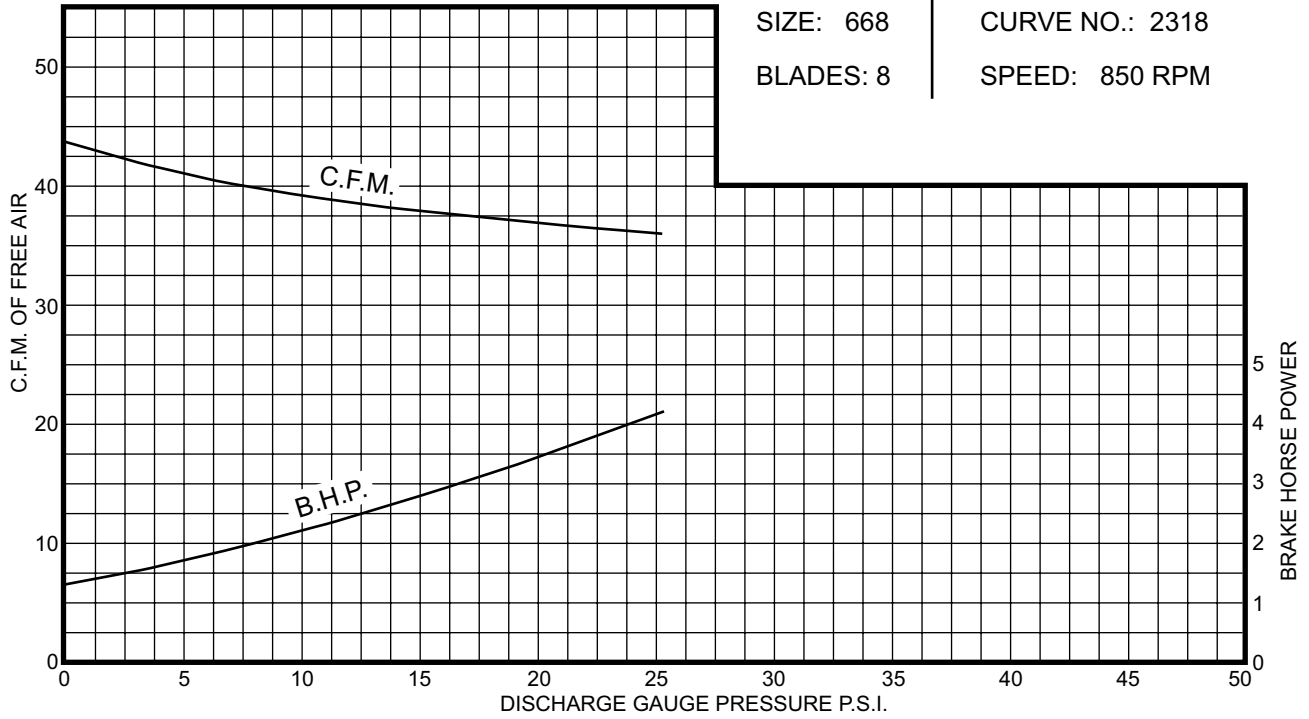




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PERFORMANCE CURVES**

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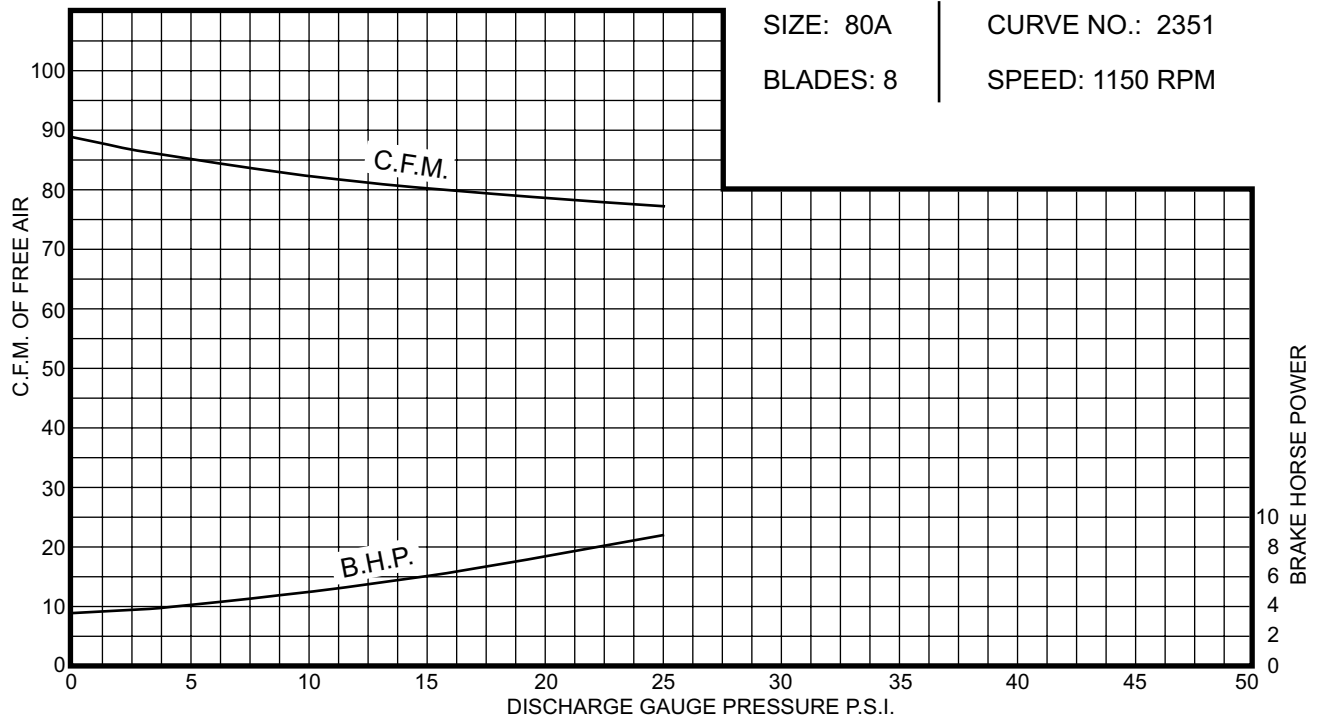
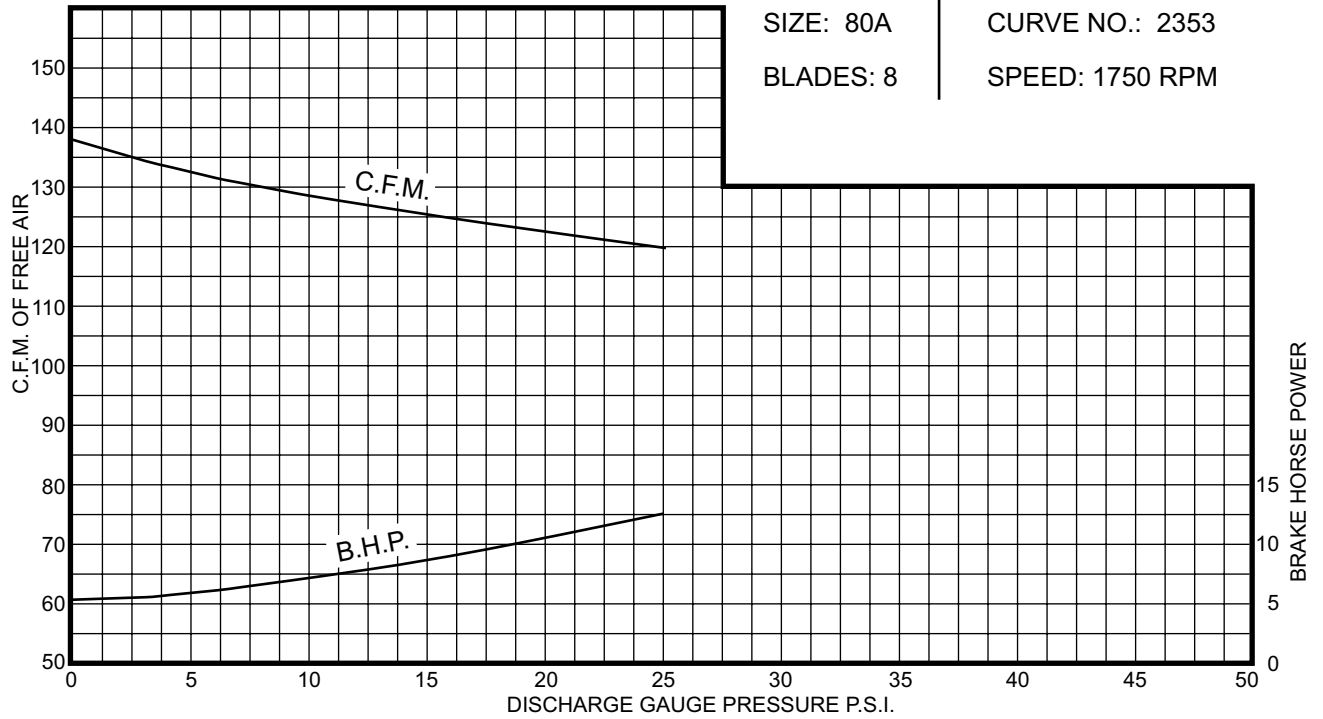




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**AIR COMPRESSORS  
AIR COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.





**SERIES 7000**  
**AIR COMPRESSORS**  
**AIR COOLED**  
**PERFORMANCE CURVES**

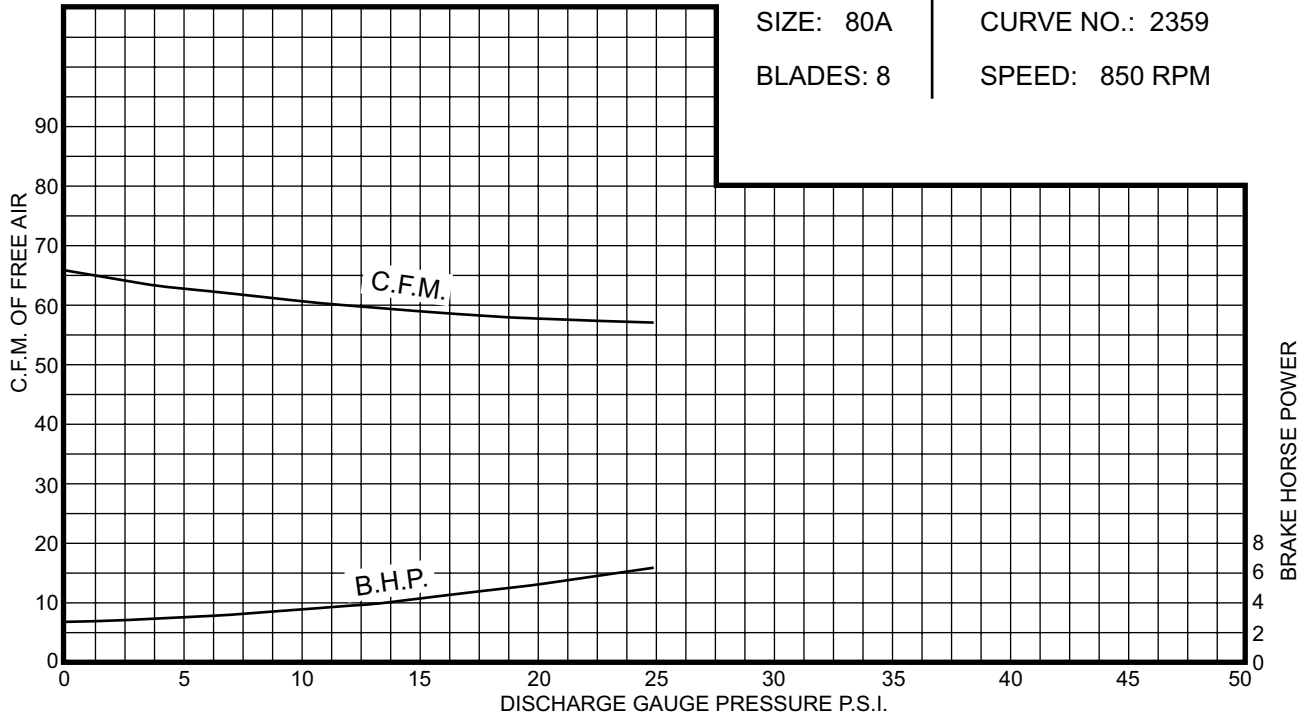
Performance is based on ASME power test code.

SIZE: 80A

CURVE NO.: 2359

BLADES: 8

SPEED: 850 RPM



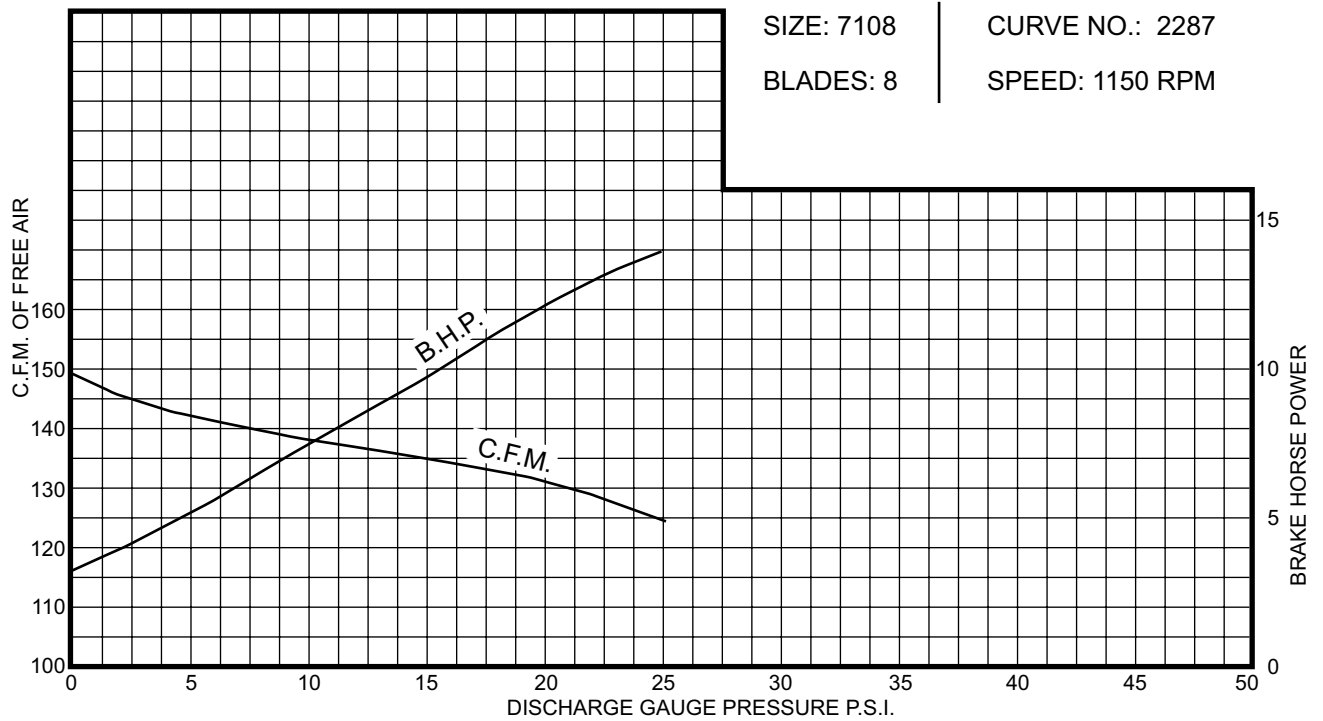
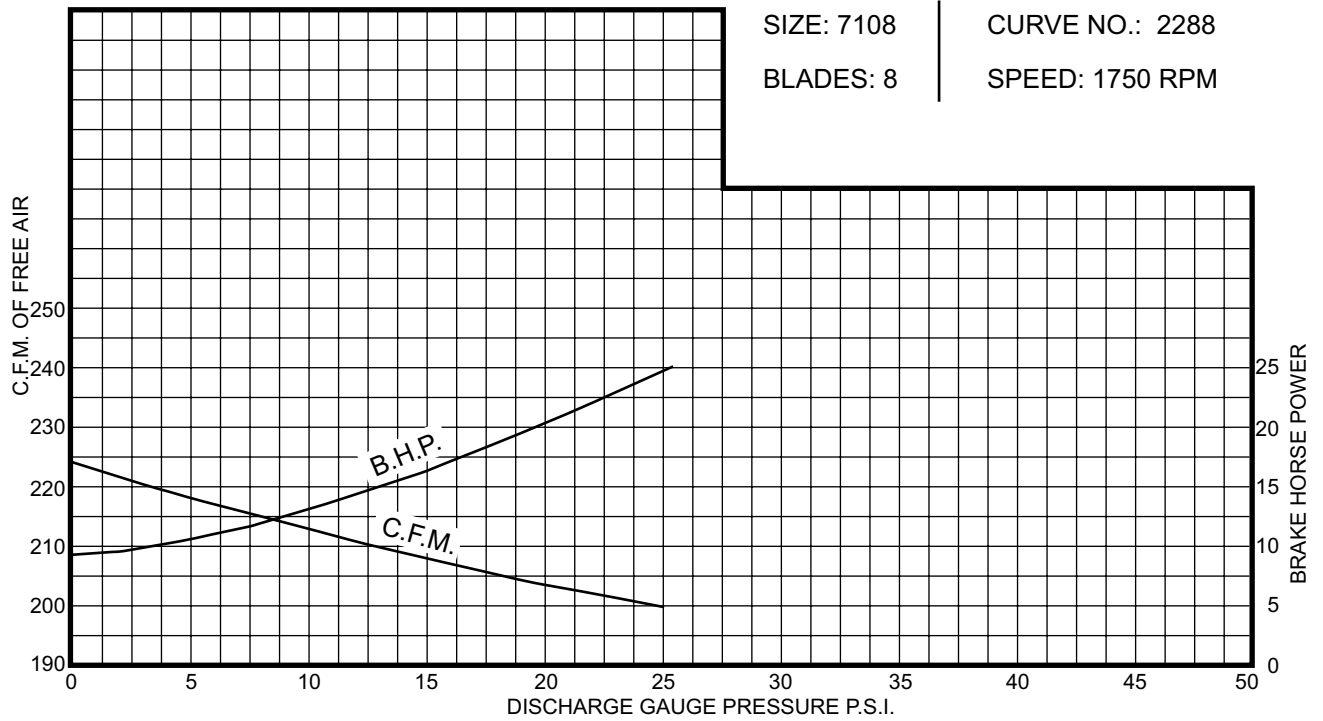




**SERIES 7000**

**AIR COMPRESSORS  
AIR COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.





**SERIES 7000**

**AIR COMPRESSORS  
AIR COOLED  
PERFORMANCE CURVES**

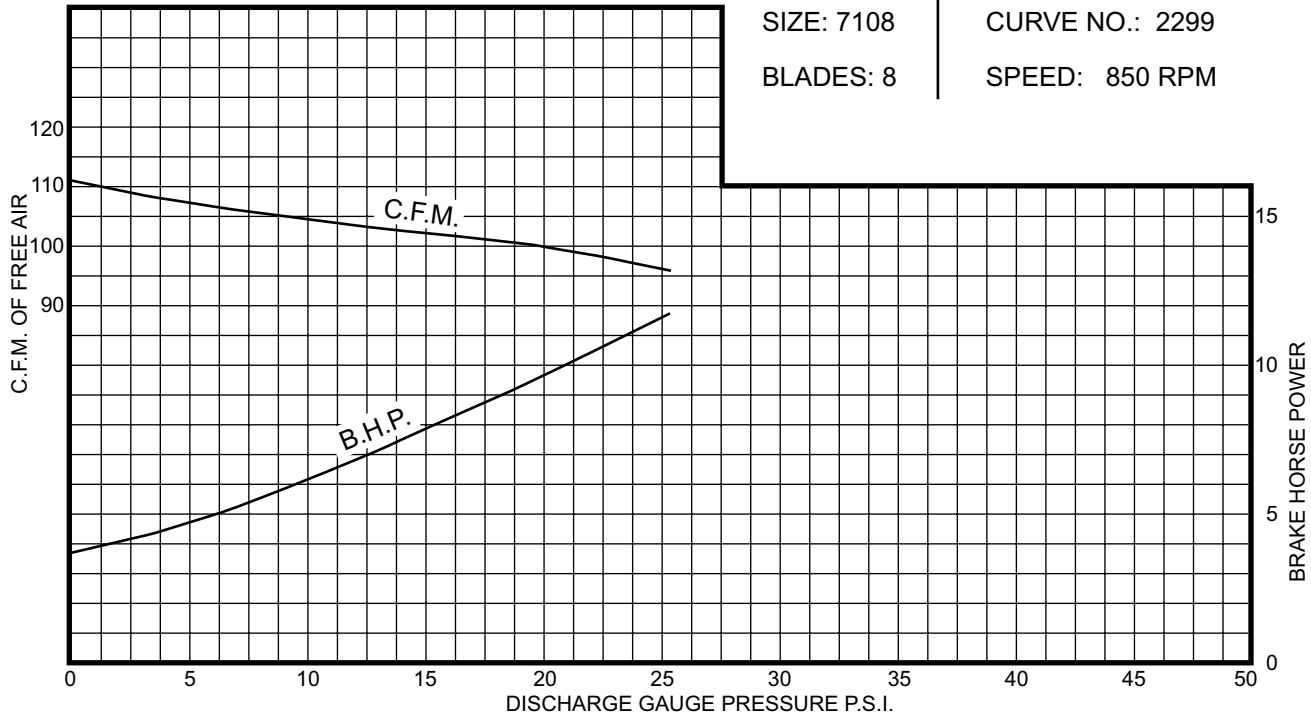
Performance is based on ASME power test code.

SIZE: 7108

CURVE NO.: 2299

BLADES: 8

SPEED: 850 RPM

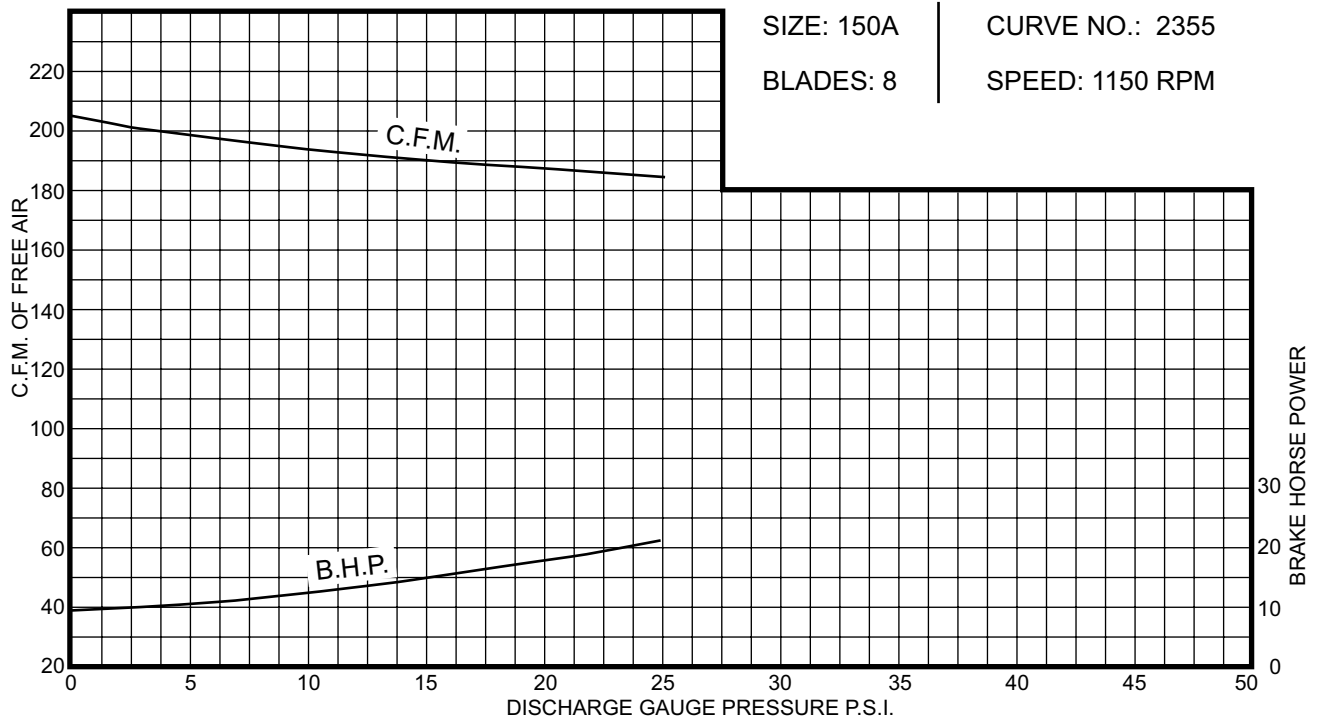
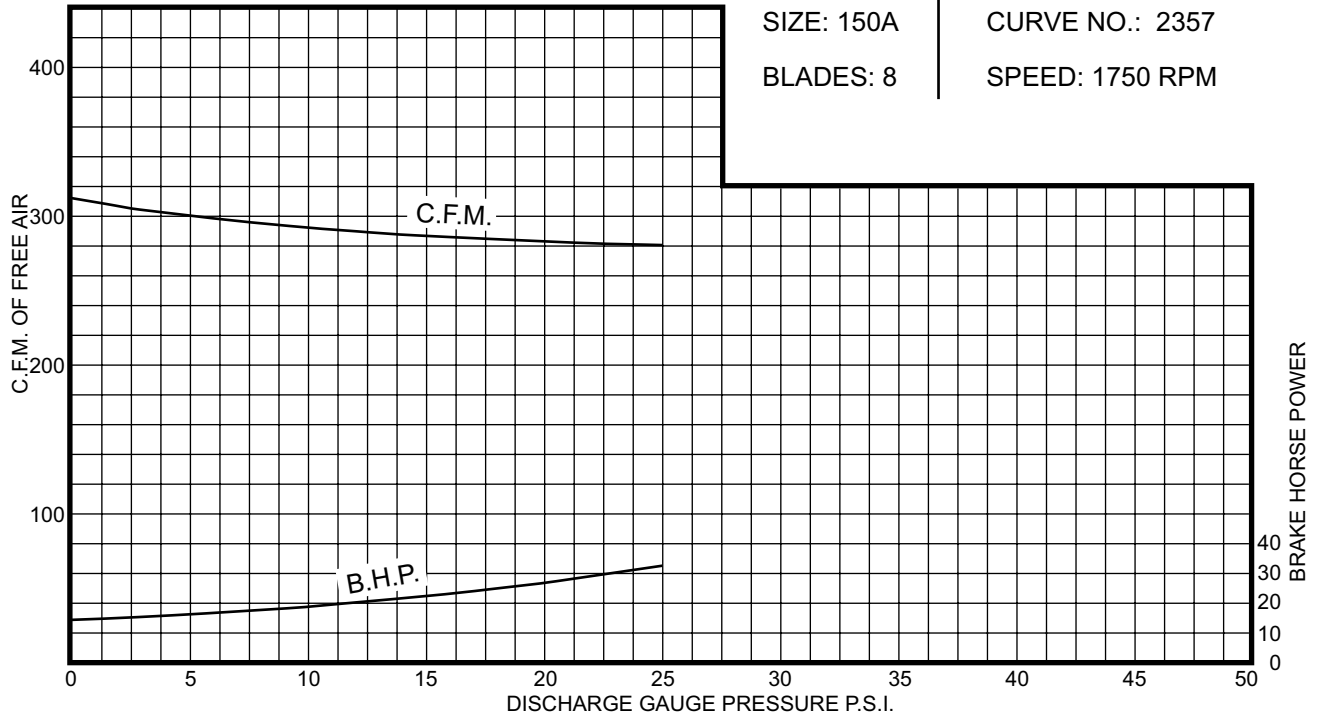




**SERIES 7000**

**AIR COMPRESSORS  
AIR COOLED  
PERFORMANCE CURVES**

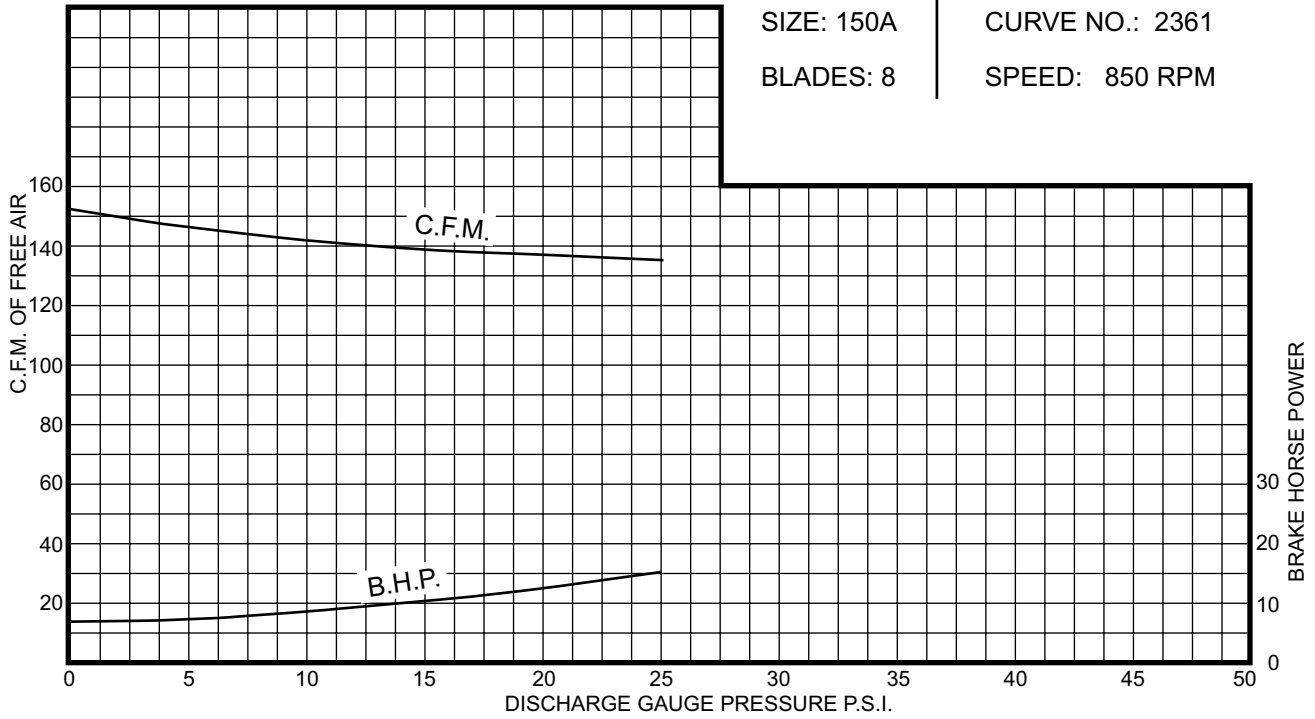
Performance is based on ASME power test code.





**SERIES 7000**  
**AIR COMPRESSORS**  
**AIR COOLED**  
**PERFORMANCE CURVES**

Performance is based on ASME power test code.

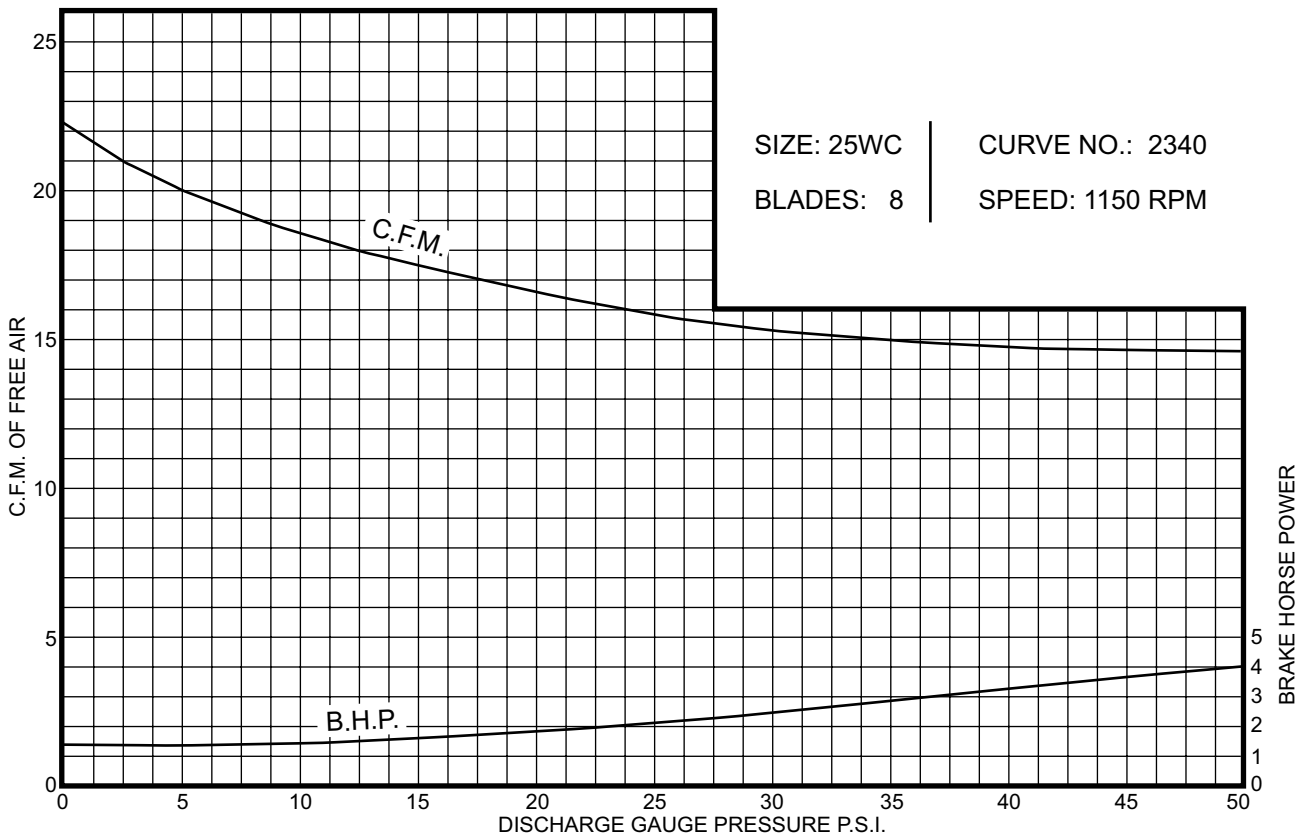
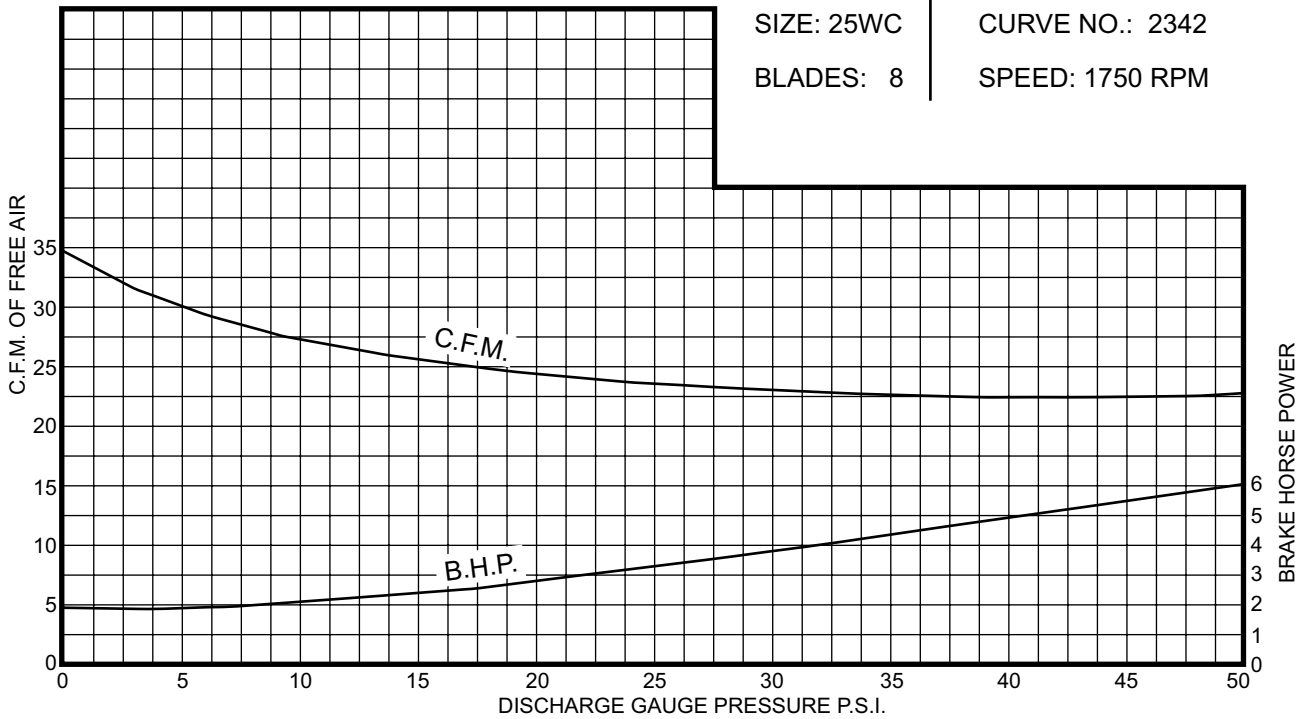




**SERIES 7000**

**AIR COMPRESSORS  
WATER COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.



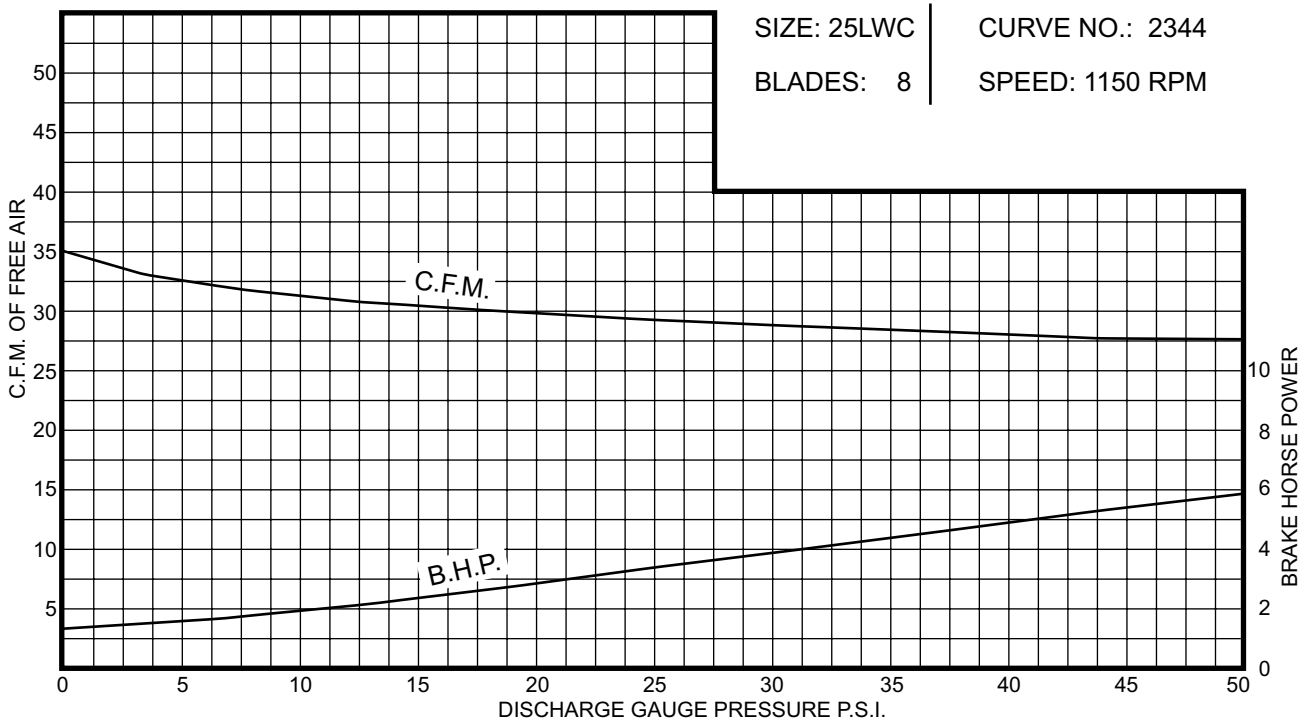
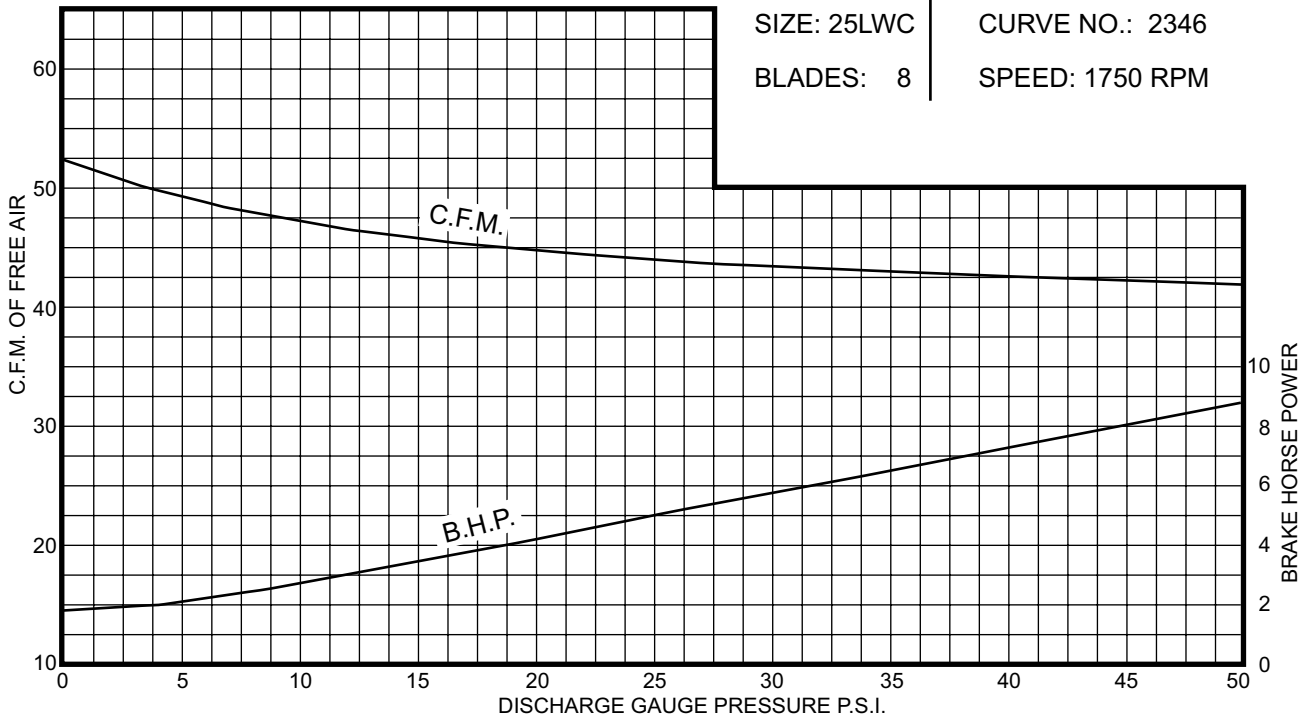




**SERIES 7000**

**AIR COMPRESSORS  
WATER COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.





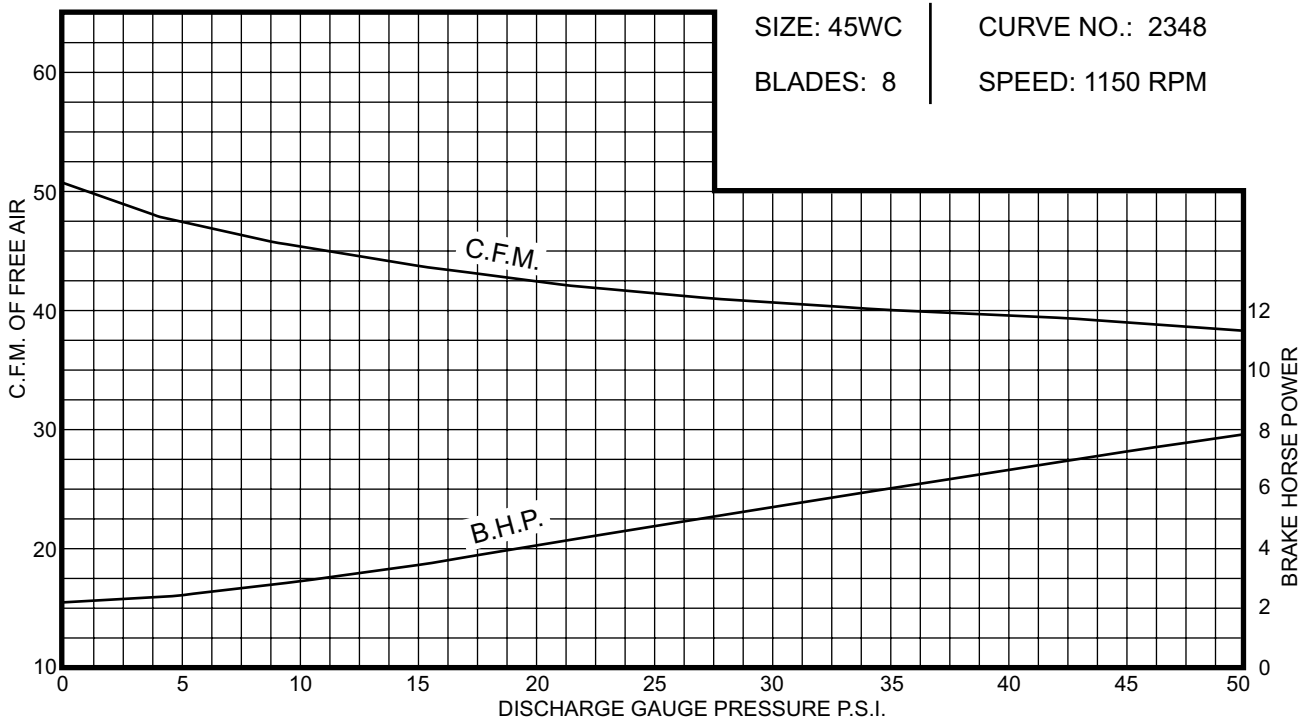
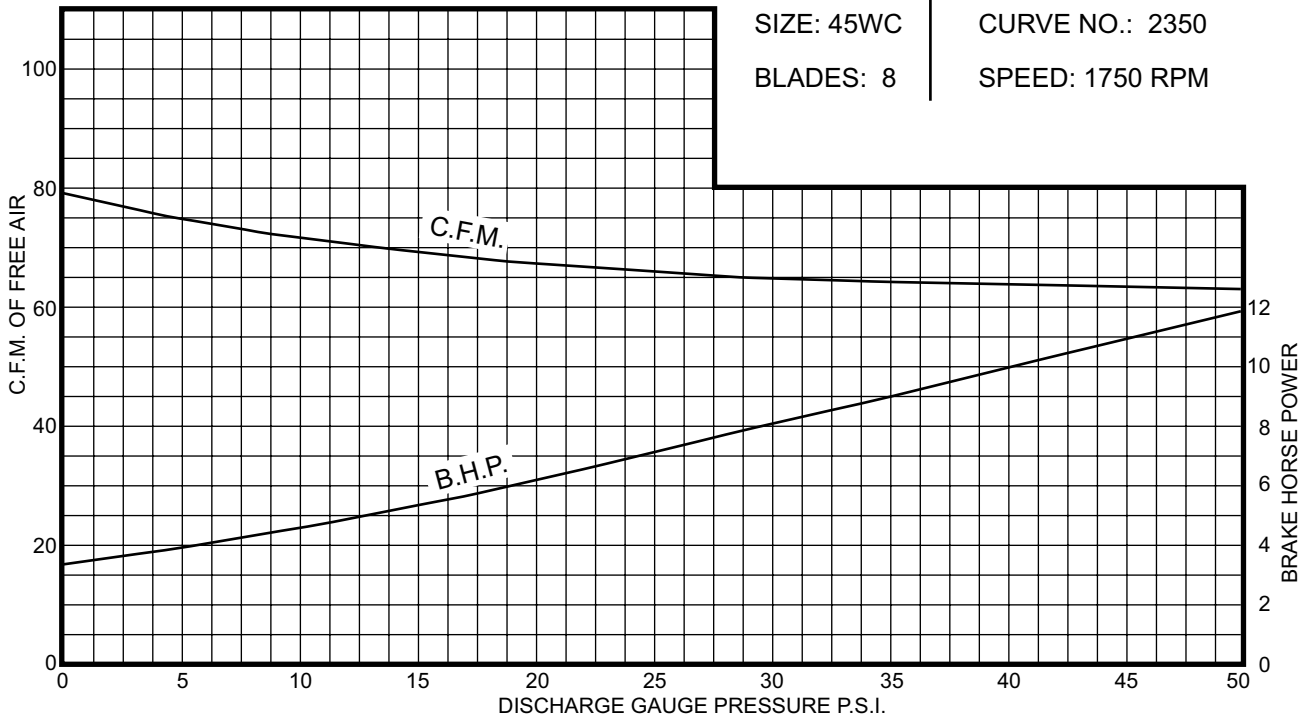




**SERIES 7000**

**AIR COMPRESSORS  
WATER COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.



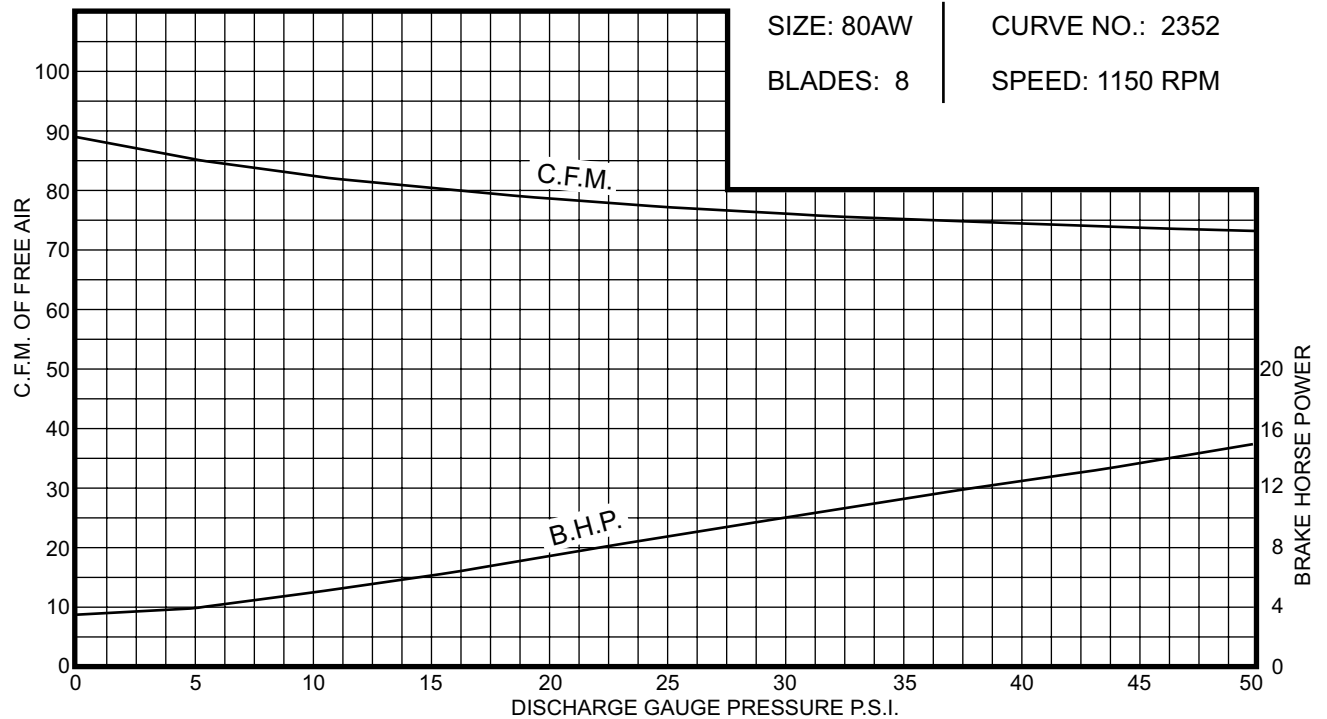
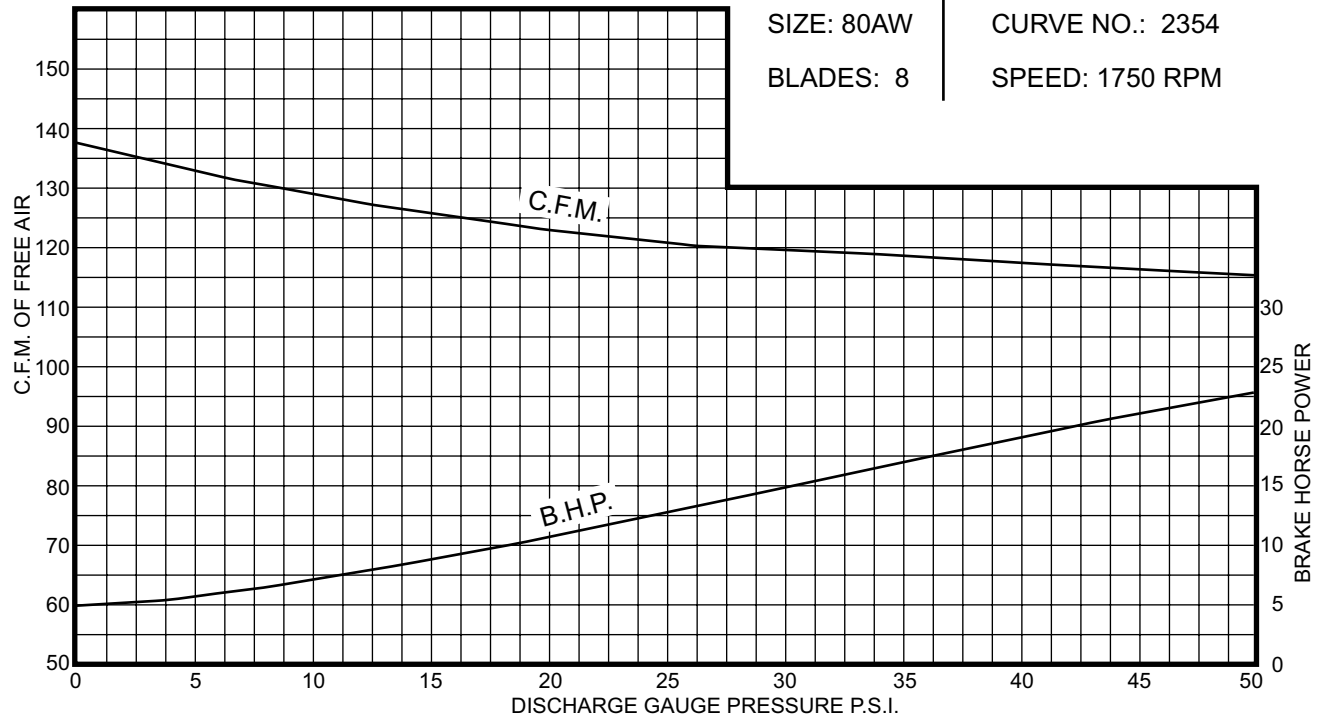




# SERIES 7000

## AIR COMPRESSORS WATER COOLED PERFORMANCE CURVES

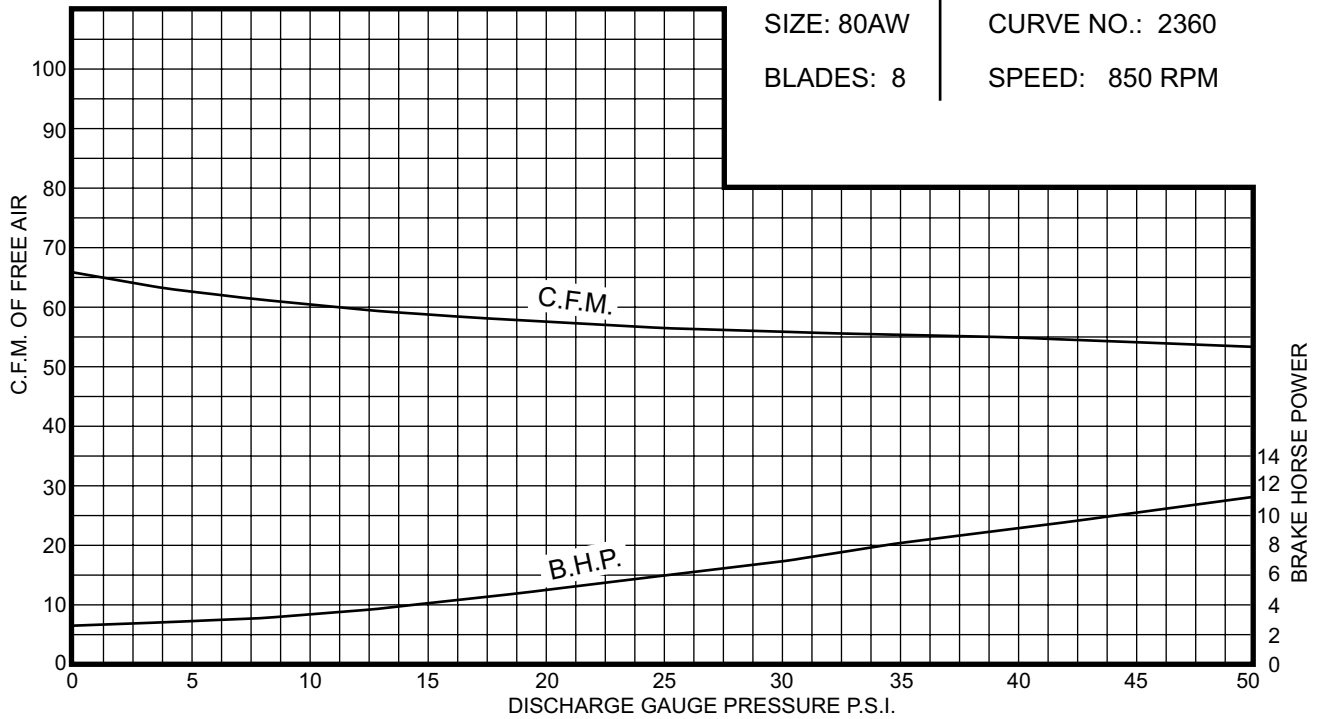
Performance is based on ASME power test code.





**SERIES 7000**  
**AIR COMPRESSORS**  
**WATER COOLED**  
**PERFORMANCE CURVES**

Performance is based on ASME power test code.

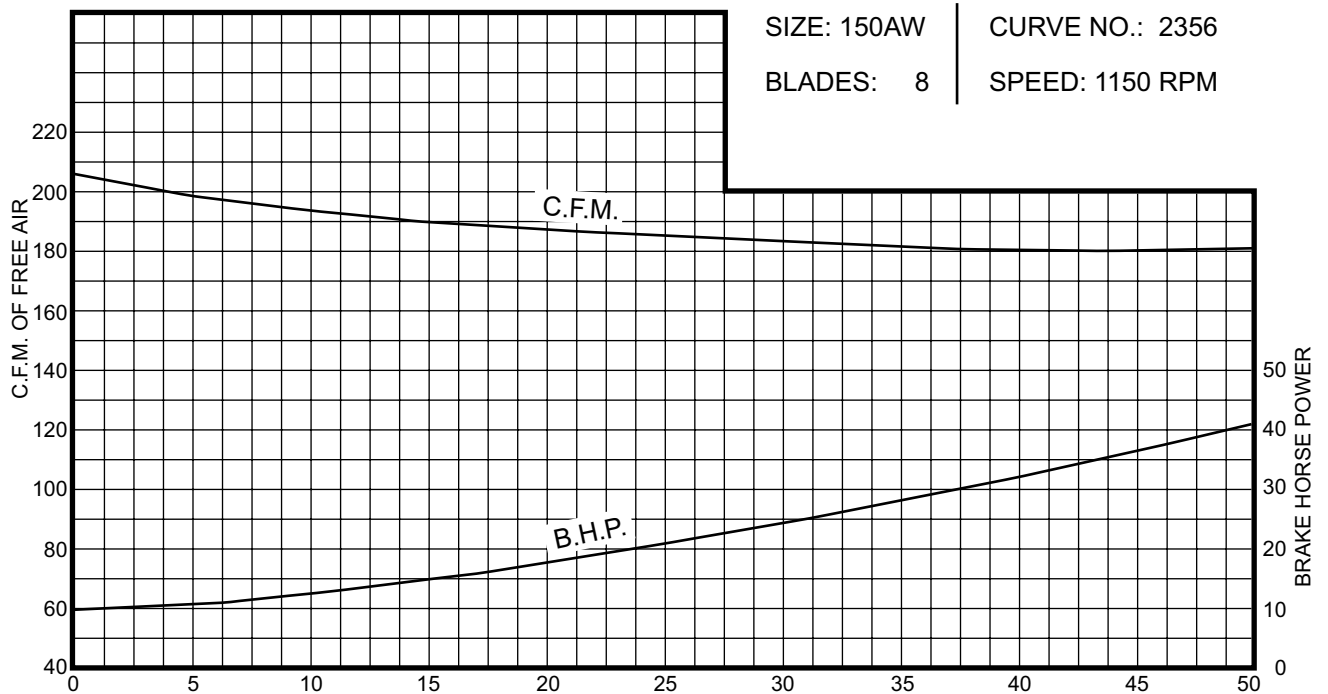
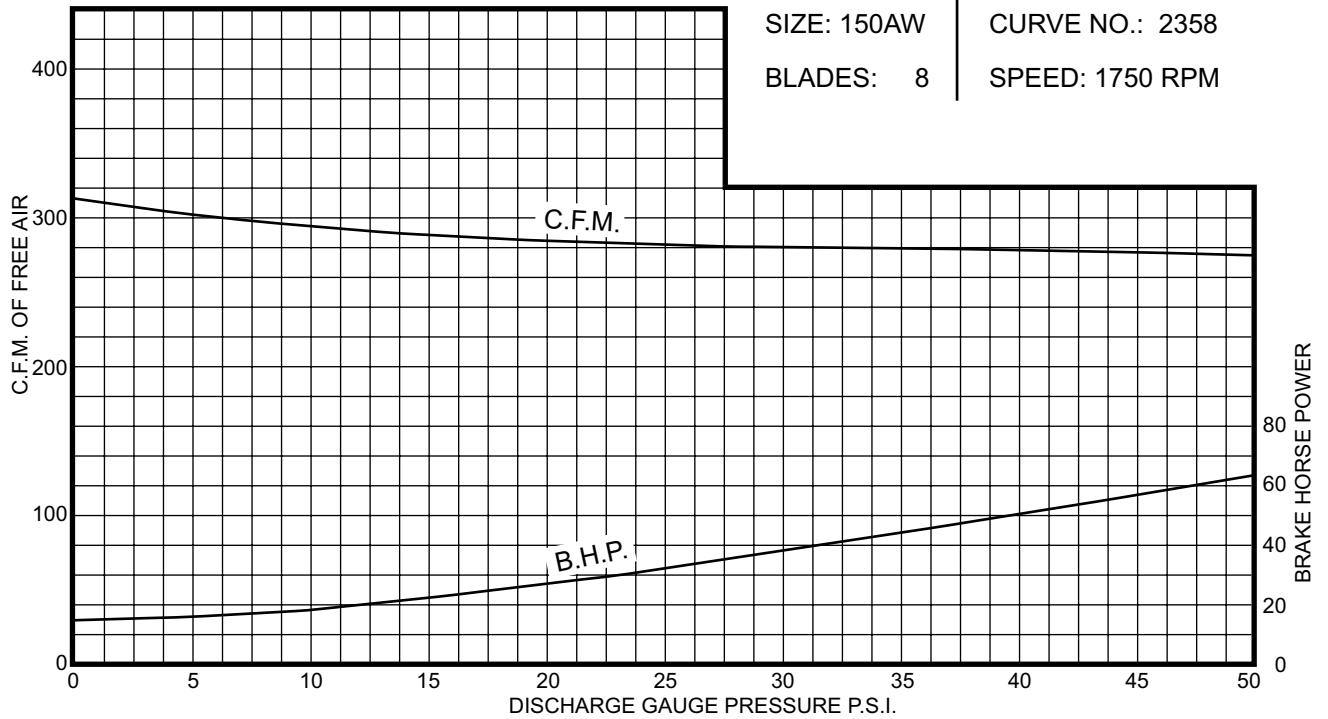




# SERIES 7000

## AIR COMPRESSORS WATER COOLED PERFORMANCE CURVES

Performance is based on ASME power test code.

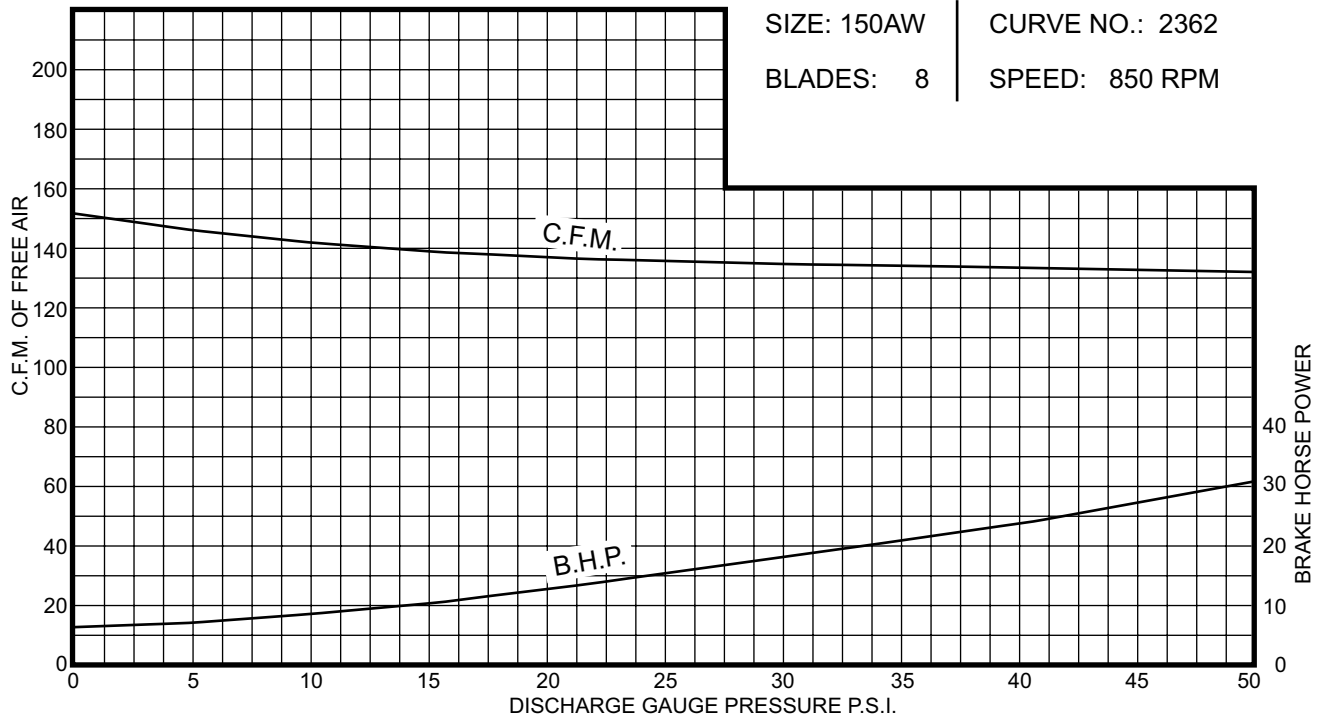




**SERIES 7000**

**AIR COMPRESSORS  
WATER COOLED  
PERFORMANCE CURVES**

Performance is based on ASME power test code.



**AIR AND FAN COOLED UNITS**

VACUA INCHES OF MERCURY		Vacuum Pump Model Number and Motor RPM											
		545	25L	545	45	25L	668	45	80A	80A	7108	150A	150A
		1150	1150	1750	1150	1750	1150	1750	1150	1750	1150	1150	1750
5	CFM	23	35	38	43	52	53	72	92	141	146	204	320
	BHP	0.8	0.9	1.3	2.2	1.5	1.8	3.8	2.6	5.2	6.9	8.0	15
	HP	1	1	1-1/2	3	1-1/2	2	5	3	7-1/2	7-1/2	10	15
10	CFM	21	33	36	42	50	50	70	89	137	143	200	308
	BHP	0.9	1.0	1.5	2.2	1.6	2.0	3.7	2.9	5.7	6.9	8.0	14.5
	HP	1	1	1-1/2	3	2	2	5	3	7-1/2	7-1/2	10	15
15	CFM	18	31	33	40	48	46	67	87	131	136	190	288
	BHP	1.2	1.1	1.8	2.2	1.8	2.2	3.6	3.3	6.0	7.0	8.1	14.3
	HP	1-1/2	1-1/2	2	3	2	3	5	5	7-1/2	7-1/2	10	15
20	CFM	16	27	30	35	42	38	60	83	125	118	168	260
	BHP	1.3	1.3	2.1	2.1	2.1	2.5	3.5	3.8	6.4	7.0	8.5	14.3
	HP	1-1/2	1-1/2	3	3	3	3	5	5	7-1/2	7-1/2	10	15

**WATER COOLED UNITS**

VACUA INCHES OF MERCURY		Vacuum Pump Model Number and Motor RPM							
		25LWC	45WC	25LWC	45WC	80AW	80AW	150AW	150AW
		1150	1150	1750	1750	1150	1750	1150	1750
5	CFM	35	43	52	72	92	141	204	320
	BHP	0.9	2.2	1.5	3.8	2.6	5.2	8.0	15.0
	HP	1	3	1-1/2	5	3	7-1/2	10	15
10	CFM	33	42	50	70	89	137	200	308
	BHP	1.0	2.2	1.6	3.7	2.9	5.7	8.0	14.5
	HP	1	3	2	5	3	7-1/2	10	15
15	CFM	31	40	48	67	87	131	190	288
	BHP	1.1	2.2	1.8	3.6	3.3	6.0	8.1	14.3
	HP	1-1/2	3	2	5	5	7-1/2	10	15
20	CFM	27	35	42	60	83	125	168	260
	BHP	1.3	2.1	2.1	3.5	3.8	6.4	8.5	14.3
	HP	1-1/2	3	3	5	5	7-1/2	10	15
25	CFM	15	20	22	38	75	110	111	206
	BHP	1.4	2.0	2.6	3.5	4.2	7.0	8.8	14.3
	HP	1-1/2	2	3	5	5	7-1/2	10	15
27	CFM	0	0	0	10	50	70	48	150
	BHP	1.4	2.0	2.7	3.4	4.4	7.1	8.8	14.3
	HP	1-1/2	2	3	5	5	7-1/2	10	15

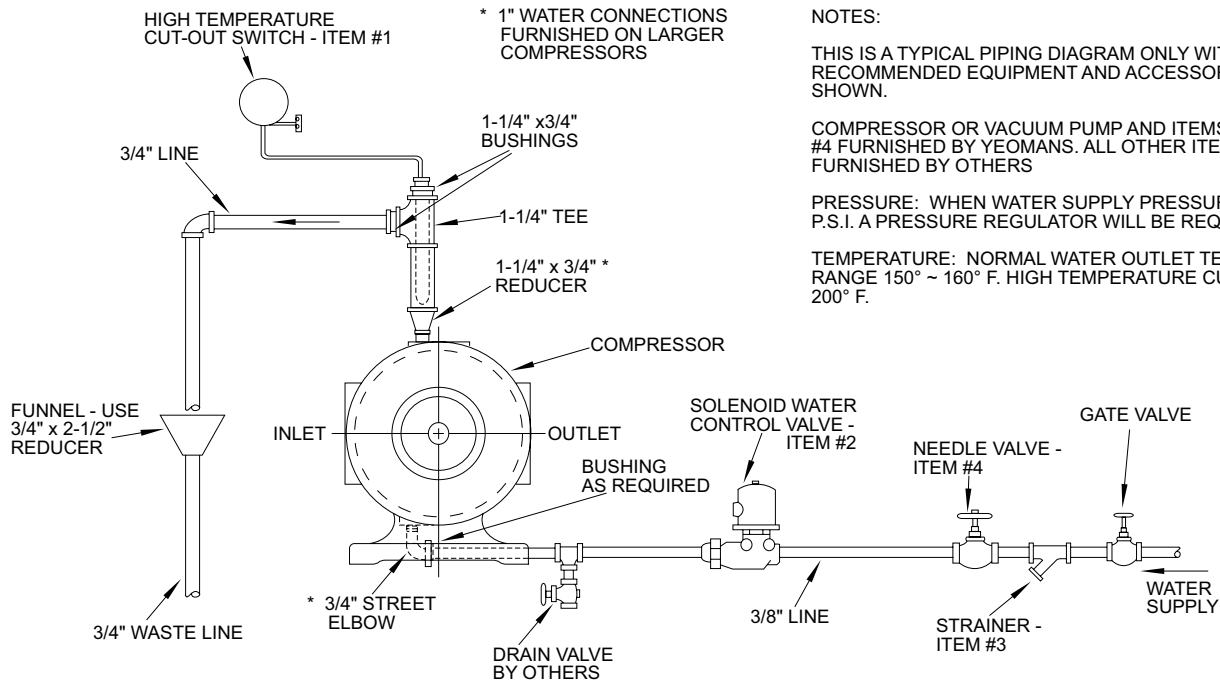
NOTE: Flow rates are based on free air at intake conditions.





System #1 - Dwg. #88782

Piping diagrams of water cooled systems for compressors and vacuum pumps.



NOTES:

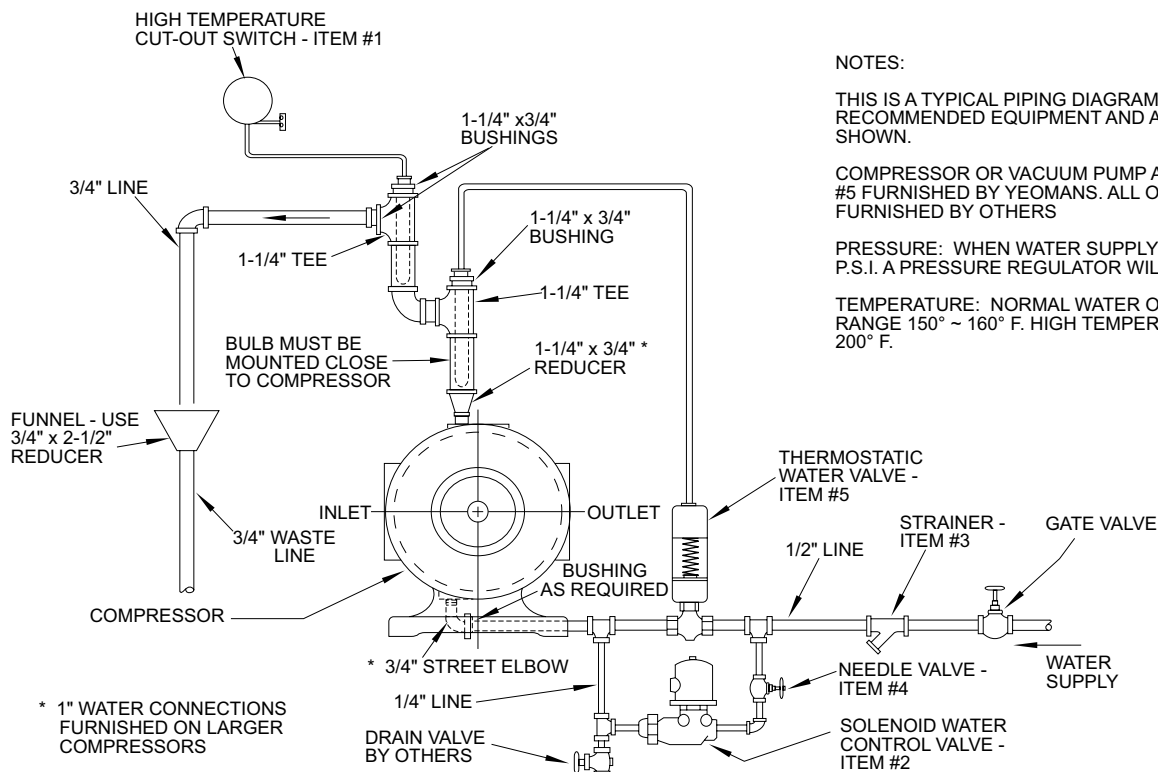
THIS IS A TYPICAL PIPING DIAGRAM ONLY WITH RECOMMENDED EQUIPMENT AND ACCESSORIES AS SHOWN.

COMPRESSOR OR VACUUM PUMP AND ITEMS #1 THROUGH #4 FURNISHED BY YEOMANS. ALL OTHER ITEMS TO BE FURNISHED BY OTHERS

PRESSURE: WHEN WATER SUPPLY PRESSURE IS OVER 75 P.S.I. A PRESSURE REGULATOR WILL BE REQUIRED.

TEMPERATURE: NORMAL WATER OUTLET TEMPERATURE RANGE 150° ~ 160° F. HIGH TEMPERATURE CUT-OUT 190° ~ 200° F.

System #2 - Dwg. #83998-C



NOTES:

THIS IS A TYPICAL PIPING DIAGRAM ONLY WITH RECOMMENDED EQUIPMENT AND ACCESSORIES AS SHOWN.

COMPRESSOR OR VACUUM PUMP AND ITEMS #1 THROUGH #5 FURNISHED BY YEOMANS. ALL OTHER ITEMS TO BE FURNISHED BY OTHERS

PRESSURE: WHEN WATER SUPPLY PRESSURE IS OVER 75 P.S.I. A PRESSURE REGULATOR WILL BE REQUIRED.

TEMPERATURE: NORMAL WATER OUTLET TEMPERATURE RANGE 150° ~ 160° F. HIGH TEMPERATURE CUT-OUT 190° ~ 200° F.

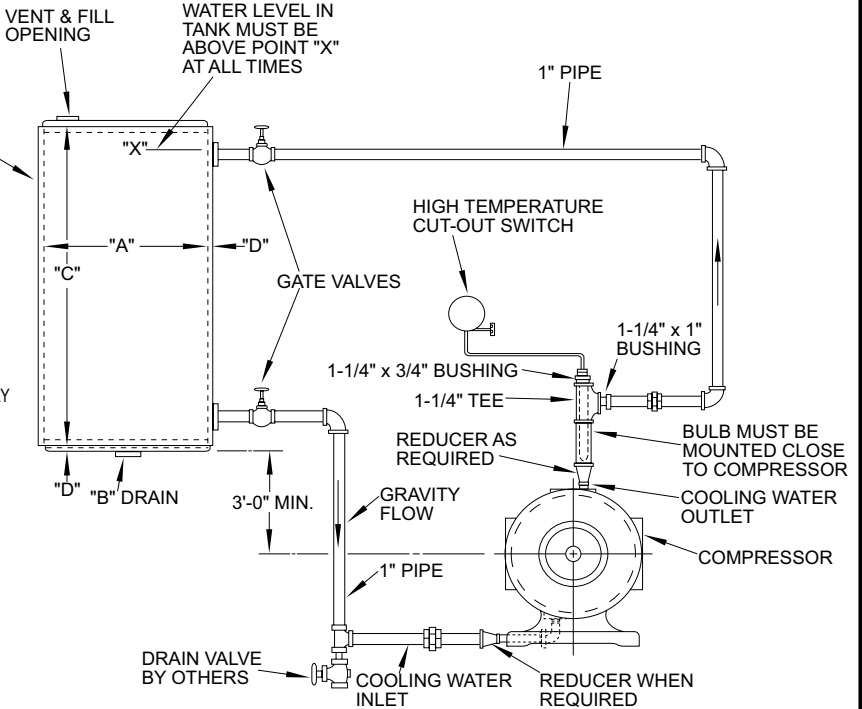
(Continued)

System #3 - Dwg. #88781

Piping diagrams of water cooled systems for compressors and vacuum pumps.

TANK DIMENSIONS					
TOTAL CONN. H.P.	GALLONS	A	B	C	D
5 ~ 7-1/2	100	24"	1"	48"	10 GA.
10 ~ 30	200	30"	1"	66"	10 GA.
40 ~ 100	300	36"	1-1/2"	66"	3/16"

MOUNT TANK ABOVE COMPRESSOR AS HIGH AS POSSIBLE



NOTES:

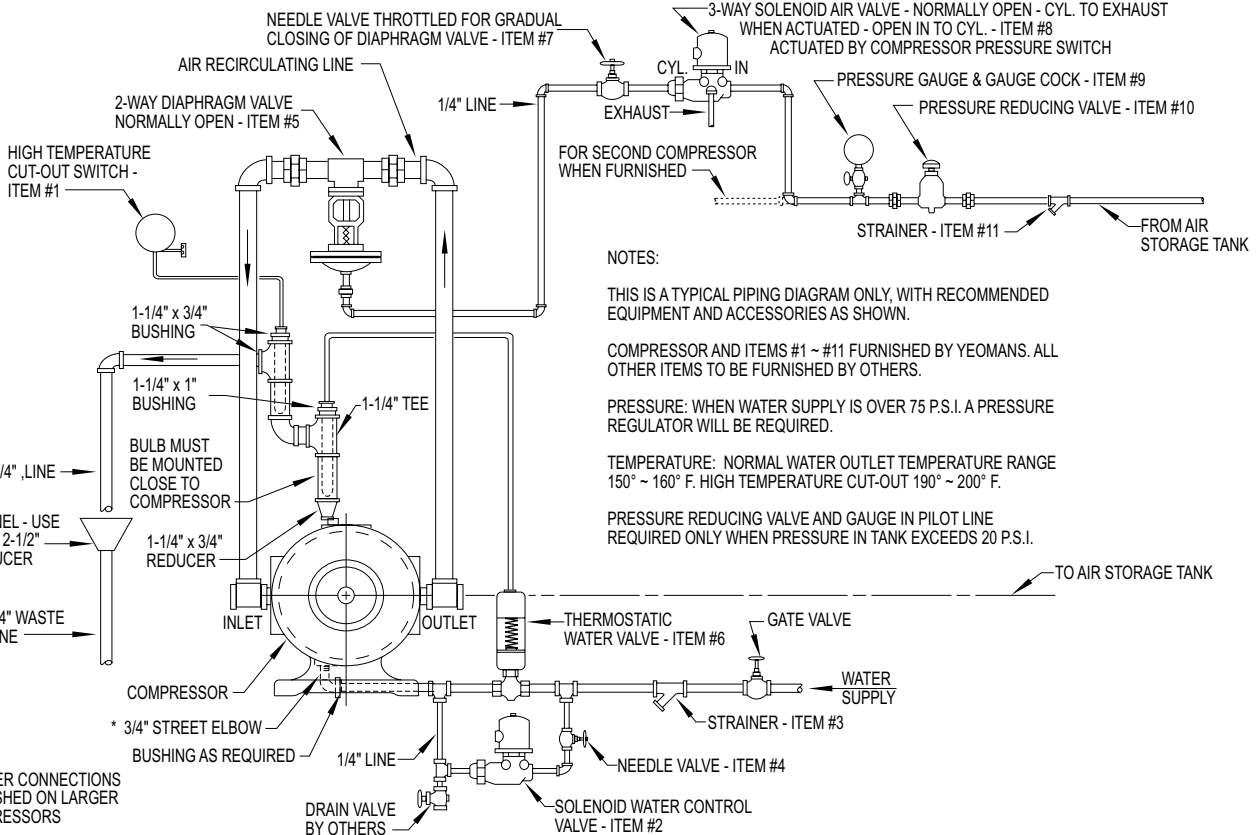
TANK SIZES ARE FOR 70° F. AMBIENT. IF AMBIENT IS OVER 70° F. USE NEXT LARGER TANK SIZE. FOR ALL AMBIENT TEMPERATURES, ADEQUATE VENTILATION MUST BE PROVIDED WITH A MINIMUM OF ONE AIR CHANGE EVERY TWO MINUTES IN THE COMPRESSOR AREA.

THIS IS A TYPICAL PIPING DIAGRAM ONLY, WITH RECOMMENDED EQUIPMENT AND ACCESSORIES AS SHOWN. TANK, COMPRESSOR OR VACUUM PUMP AND HIGH TEMPERATURE CUT-OUT SWITCH FURNISHED BY YEOMANS. ALL OTHER ITEMS TO BE FURNISHED BY OTHERS.

TEMPERATURE: NORMAL WATER TEMPERATURE RANGE 150° ~ 160° F. HIGH TEMPERATURE CUT-OUT 190° ~ 200° F.

System #6 - Dwg. #93352-B

For compressors only, in Stored Air Systems.  
Refer to factory for recommended application.



NOTES:

THIS IS A TYPICAL PIPING DIAGRAM ONLY, WITH RECOMMENDED EQUIPMENT AND ACCESSORIES AS SHOWN.

COMPRESSOR AND ITEMS #1 ~ #11 FURNISHED BY YEOMANS. ALL OTHER ITEMS TO BE FURNISHED BY OTHERS.

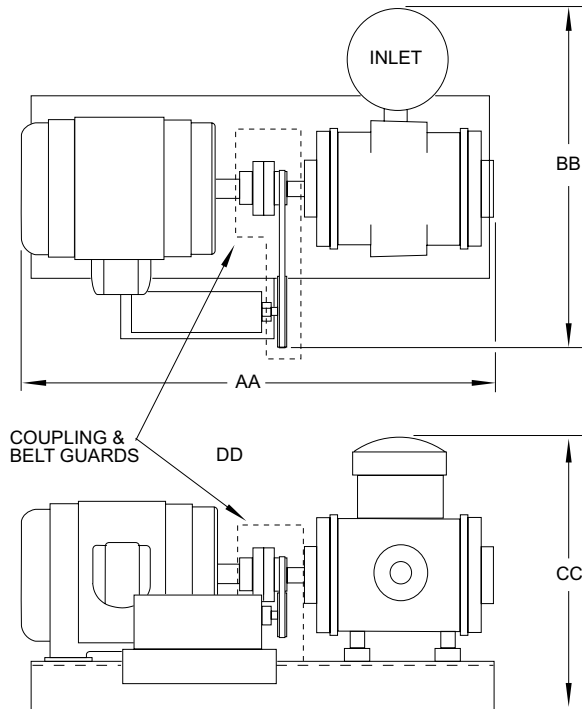
PRESSURE: WHEN WATER SUPPLY IS OVER 75 P.S.I. A PRESSURE REGULATOR WILL BE REQUIRED.

TEMPERATURE: NORMAL WATER OUTLET TEMPERATURE RANGE 150° ~ 160° F. HIGH TEMPERATURE CUT-OUT 190° ~ 200° F.

PRESSURE REDUCING VALVE AND GAUGE IN PILOT LINE REQUIRED ONLY WHEN PRESSURE IN TANK EXCEEDS 20 P.S.I.

\* 1" WATER CONNECTIONS FURNISHED ON LARGER COMPRESSORS

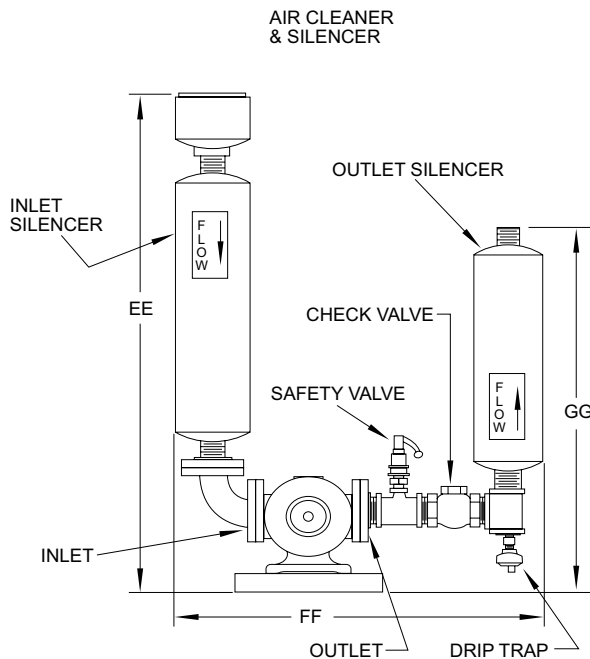
Dwg. # 62313-B


**MAXIMUM DIMENSIONS**

COMPRESSOR SIZE	H.P.	AA	BB	CC	DD
545	1-1/2 ~ 5	38	20	19	1
25WC	1-1/2 ~ 7-1/2	38	30	18	1-1/2
25LWC	1-1/2 ~ 7-1/2	41	30	18	1-1/2
45WC	2 ~ 15	46	32	21	2
668	3 ~ 10	38	32	19	2
80A	5 ~ 15	49	33	23	2-1/2
80AW	5 ~ 20	54	34	24	2-1/2
7108	5 ~ 20	55	36	26	3
150A	10 ~ 40	63	41	25	3
150AW	10 ~ 50	67	41	26	3

NOTE: ALL DIMENSIONS ARE IN INCHES

Dwg. # 72663


**MAXIMUM DIMENSIONS**

COMPRESSOR SIZE	H.P.	EE	FF	GG
545	1-1/2 ~ 5	31	28	30
25WC	1-1/2 ~ 7-1/2	34	29	32
25LWC	1-1/2 ~ 7-1/2	41	32	32
45WC	2 ~ 15	42	37	38
668	3 ~ 10	39	36	36
80A	5 ~ 15	51	48	47
80AW	5 ~ 20	52	48	48
7108	5 ~ 20	65	54	54
150A	10 ~ 40	65	60	67
150AW	10 ~ 50	66	60	68

NOTE: ALL DIMENSIONS ARE IN INCHES

## NOTES:

- 1- SCREWED CONNECTIONS FURNISHED ON MODELS 545 & 668
- 2- SILENCERS ARE RECOMMENDED AND ARE FURNISHED AS OPTIONAL EQUIPMENT

