FSCURTIS AIR COMPRESSORS

VACU-PLUS SERIES
VACUUM PUMPS

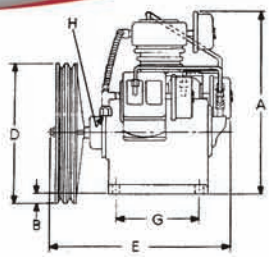
RELIABLE, HEAVY CAST IRON DESIGN

27 1/2" HG MAXIMUM VACUUM AT SEA LEVEL CONDITIONS:

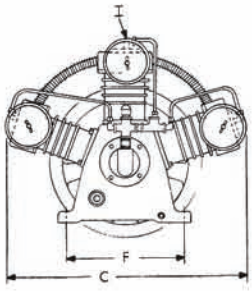
- **Heavy, close grained, cast iron construction, m**inimizes vibration during operation.
- **Air cooled, cast iron cylinders** come with deep radial fins providing 360 degree heat dissipation.
- **Dynamically balanced crankshaft** is precision machined and ground assuring extended running life for the internal bearings and wearing surfaces.
- **Main roller or ball bearings** are expertly installed to hold the alignment of the rotating elements to the crankcase.
- **Connecting rods** are of high tensile strength material. Oil entrance ports are machined at the crankshaft journal and at the piston pin to allow the flow of fresh oil throughout the connecting rod.
- **Balanced flywheel** supplies a high volume of air flow to cool cylinders and heads.
- **Oil level sight glass** prevents over filling and provides for continuous oil monitoring.
- **The FSCURTIS Oil Carryover Reduction™ System (OCR)** ensures the lubricating oil is kept within the compressor.
- **Special piston rings** with the OCR System, are designed to minimize oil carryover.

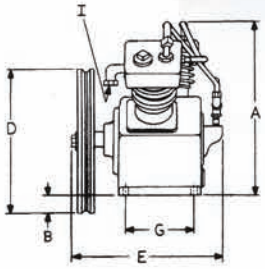
Piston Displacement – 6.6 to 86.0 CFM 27½" HG Max. Vacuum at sea level conditions

SELECTION AND DIMENSION CHART* FOR FSCURTIS VACUUM PUMPS

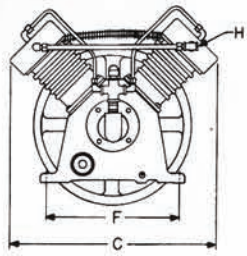


CONFIGURATIONS ARE TYPICAL





USE FOR MODELS VP2 & VP3 ONLY



VACUUM PUMP MODEL	MOTOR H.P.	PISTON DISPL. CFM	SPEED RPM	NO. CYLINDERS BORE x STROKE INCHES	BASIC PUMP DIMENSIONS - INCHES							CONNECTIONS H-SUCTION I-DISCHARGE	WT. LBS.
					A	B	C	D	E	F	G		
VP2	1/3 1/2	6.6 9.3	640 900	(2) 2.56 x 1.75	12½	1⅜	14½	10⅝	14¾	8¾	4¾	H - ½" NPT I - ½" NPS I - ½" TUBE O.D.	51
VP3	1/2 3/4	10.3 13.5 15.3	610 800 900	(3) 2.56 x 1.90	14	1	18⅜	10⅝	12⅝	8¾	5⅞	H - ½"NPT I - ½"NPS I - ½" TUBE O.D.	71
VP4	3/4 1 1 1/2	13.4 17.4 19.2	630 810 900	(3) 3.15 x 2.36	15½	1½	20½	12⅜	15	11½	4⅞	H - ¾"NPS H-¾" TUBE O.D. I - SILENCER	114
VP5	1 1 1/2 2	17.9 25.5 28.5	560 800 900	(3) 3.15 x 2.36	18⅛	2¾	23⅜	15¾	16¾	11½	6⅜	H - ¾"NPS H-¾" TUBE O.D. I - SILENCER	159
VP6	2 3	34.9 52.4	600 900	(3) 3.93 x 2.75	21	3⅜	25⅝	11¾	20⅛	13¾	6¾	H - 1"NPS H-⅞" TUBE O.D. I - SILENCER	270
VP7	3 5	57.4 86.0	600 900	(3) 4.72 x 3.15	25⅝	4½	31½	13⅞	22⅞	15⅝	9	H - 1⅛"NPS H-1⅛" TUBE O.D. I - SILENCER	405

Genuine. FSCURTIS.

VACU-PLUS SERIES VACUUM PUMPS

PRODUCT APPLICATIONS:

- Bottle Filling
- Vacuum Cleaning
- De-aerating
- Pump Cleaning
- Dehydrating
- Feeding Paper Sheets
- Tank Purging
- Leak Testing
- Lifting Liquids
- Milking Machines
- Oil Wells
- Liquid Extracting

SELECTION

The following itemizes the information and data required to select a FSCURTIS Vacuum Pump

- Type of system, closed or not closed
- If closed, what is the volume of the system in cubic feet; how much time is allowed to reach the required vacuum; what vacuum in inches of mercury is required.
- If the system is not closed*, what is the volume in cubic feet per minute of air or gas to be handled; what vacuum in inches of mercury is required.
- Utilize the FSCURTIS System Evacuation Curve for closed or not closed applications by the following EXAMPLES.

It is very important to prevent leakage in a closed vacuum system. Leaks will reduce the ability to reach the vacuum level desired. They also increase the evacuation time and may cause additional load on the vacuum pump and driver. Inspect systems regularly.

* *If acid vapors, condensation, dust, or foreign matter is present, suitable filters, scrubbers or separators must be installed on the inlet side of the vacuum pump.*

PERFORMANCE CURVE SIZING

CLOSED, AIR TIGHT SYSTEM (CURVE C)

To find CFM Piston Displacement required to lower a 60 cubic foot system (tank) to 20 inches of mercury vacuum in 5 minutes.

The curve indicates 1.4 CFM PD is required to evacuate 1.0 cubic foot to 20 inches of mercury in 1 minute.

CALCULATE: 1.4 x 60 = 84.0 This is the PD required to evacuate the 60 cu. ft. in one minute.

84.0/5 Min. = 16.8 This is the CFM Piston Displacement required to evacuate 60 cu. ft., to 20" vacuum in 5 minutes.

From Selection Chart:

Select Model VP4, 1 HP motor, 810 RPM

NOT CLOSED SYSTEM (CURVE NC)

To find CFM Piston Displacement required to operate at a vacuum level of 14 inches of mercury in an oil well and pump 15,000 cubic feet per day to atmosphere.

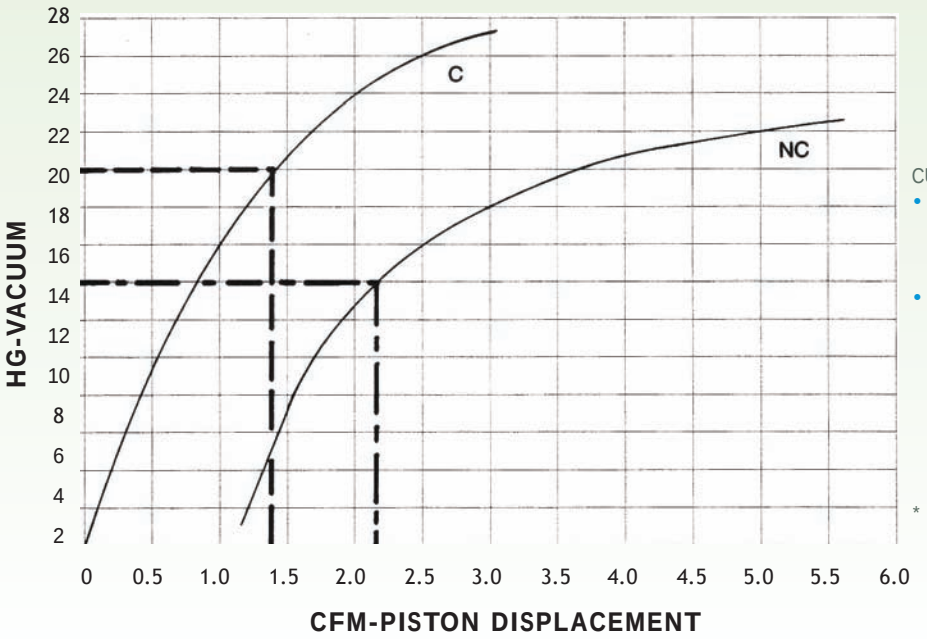
The curve indicates 2.2 CFM PD required per CFM pumped.

CALCULATE:
24 Hrs. x 60 Min. = 1440 Min.
15,000/1440 = 10.42 CFM pumped

10.42 x 2.2 = 22.96 This is the PD required to pump 15,000 CF/D with an inlet of 14" Hg.

From Selection Chart:

Select Model VP5, 1½ HP, 800 RPM



FSCURTIS SYSTEM EVACUATION CURVES*

CURVE C:
- To be used for closed, air tight systems.
- Depicts the CFM-Piston Displacement required to lower one cubic foot of atmospheric air (14.7 PSIA) to a predetermined vacuum in one minute.

CURVE NC:
- To be used for systems not closed with atmospheric discharge.
- Depicts the CFM-Piston Displacement required to operate in or required to maintain a predetermined vacuum per CFM pumped.

* *Based on FSCURTIS VP Series Vacuum Pumps.*

Distributed By:

FSCURTIS®

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Improvements and research are continuous at FSCURTIS. *Specifications may change without notice.*