

SP80D—SP250D/SP80X—SP250X

# SPACE SAVER DRY ROTARY VANE MEDICAL VACUUM SYSTEM

MAKE IT BECKER.



MODEL	HP	END VACUUM ("Hg)	OPEN FLOW (SCFM)	FLOW @ 19"HG (SCFM)	BTU/HR (19"Hg)	BTU/HR (MAX VAC)	FLA (Per Pump)			SOUND <sup>1</sup> dB(A)
							208	230	460	
SP100D/X	4.8	27	66.0	18.7	11,362	11,260	13.2	12.4	6.2	77
SP140D/X	6	24	91.0	25.4	17,368	16,040	18.7	18.4	9.2	79
SP250D/X	8.9	24	169.0	50.9	23,134	22,793	28.1	27.8	13.9	79
	12	27					35.4	33.4	16.7	

(1) Per Pump dB(A) – According to DIN EN ISO 3744 (Kpa = 3db(A)), 39.4 inch distance, at medium load, both connection sides piped  
(2) All values listed are at 60Hz  
(3) Reference data (atmosphere) 0"HgV,68°F; Tolerance:±5%  
(4) Values listed per NFPA standard with one pump as reserve



# THE BECKER ADVANTAGE SYSTEM

## FEATURES OF THE SPACE SAVER DRY ROTARY VANE

### Medical Vacuum System

#### BECKER ADVANTAGE D & X SPACE SAVER VACUUM SYSTEM

Pneumatic vacuum system designed for medical use. Features four Becker brand vacuum pumps, with integrated filtration and safety relief valves. Space Saver systems offer a compact footprint for applications where installation space is restricted. All medical systems are NFPA 99 compliant and include all necessary redundancies. All systems are tested for leaks and functionality before shipping.

The Advantage D & X space saver systems include:

- Two Becker dry rotary vane vacuum pumps
- AMSE coded vacuum receiver with drain and bypass manifold
- Single point service for electrical and vacuum connections
- Integrated electrical panel with duplex pump controls
- Optional external filtration canisters (one per pump)

#### VACUUM PUMPS

All pumps used on our systems are Becker Manufactured and individually tested at factory before shipping. Becker oil-free rotary vane vacuum pumps use vanes made of a carbon/resin composite material unique to Becker. Our Advantage X systems feature our long lasting vane design for an extended vane life of 20,000 hours. Additional specifications are:

- End vacuum of 25"Hg-27"Hg (Model Dependent)
- Integrated 2-micron paper inlet filter
- Carbon dust separator and vacuum safety relief valves
- Liquid filled vacuum gauges installed at the pump
- Quick and simple maintenance procedures
- Single shaft direct drive through coupling
- IE3/NEMA PREMIUM efficiency motors
- TEFC Motors
- 208V/230V/460V/575V – 3-phase motor options

#### PLUMBING & RECEIVER

All vacuum pumps are plumbed to a manifold and connected to the air receiver. Check valves are installed at each pump inlet to prevent backflow in the system. Ball valves installed for pump and receiver isolation. One point connection for vacuum plumbing is standard for all Becker systems. Optional manifold and one point connection for exhaust plumbing is available.

All air receivers are ASME stamped to code and may have a mounted bypass and drain to allow for manual liquid removal.

#### CONTROL PANEL

NEMA type 3R, 4 & 12 enclosure with UL listing; mounted and prewired for duplex system controls. Becker duplex system controls are designed with lead/lag sequencing to maintain the desired vacuum range and provide automatic alternation of vacuum pumps to maintain equal run time between available pumps. System has an adjustable minimum run timer as well as a default 4-hour maximum run timer, completion of this timer results in switching of the active pump. Additional elements included are:

- Redundant Transformers per NFPA 99
- 115V low voltage control transformer with fused primary and secondary
- Motor starters with overload protection
- Automatic low voltage transformer switching with alarm
- One Hand-Off-Auto switch per pump
- System run & alarm lamps
- Sound horn for notification of system alarms
- Silence/acknowledge alarm push button
- CVT failure lamp alert
- Isolated relays for remote alarm installation
- Preinstalled vacuum transducer

Panel also includes a 7" touchscreen LCD HMI unit to display system status. HMI provides access to basic system setup settings such as number of active pumps, vacuum high/low setpoints, and min/max run time. Live monitoring of each pump motor's average amperage and amperage per phase is also available.

PLC control unit offers the following communication services:

- Ethernet/IP slave device
- Modbus TCP
- SMS/email notifications
- Web server (WebVisu)

DIMENSIONS

MODEL	LENGTH (Inches)	WIDTH (Inches)	HEIGHT (Inches)	RECEIVER CAPACITY (Gallons)	INLET/ EXHAUST (Inches)	WEIGHT (Pounds)
SP100D/X	66	45	92	60	2	1,500
SP140D/X	66	45	92	60	2	1,625
SP250D/X	66	45	92	60	2	2,165

Dimensions subject to change.  
Minimum clearance around system is 36 inches.  
Contact factory for dimensional drawings.

