

## High Efficiency Liquid-Solid Separator



**Flow Range:**  
**55 to 1,030 U.S. gpm (12.5 – 233 m<sup>3</sup>/hr)**

*Consult factory for higher flow rates.*

**Maximum Standard Pressure:**

ANSI flange – 250 psi (17.2 bar) at 230° F (110° C)

DIN flange – 232 psi (16 bar) at 230° F (110° C)

JIS flange – 203 psi (14 bar) at 230° F (110° C)






**Maximum Temperature:** 230° F (110° C)

**Pressure Loss:** As low as 3 psi

*eJPX is our highest efficiency liquid-solid separator that provides fine particle removal (up to 98% of 44 micron and larger) using centrifugal action for industrial applications. This results in greater solids removal, lower maintenance, and fewer unexpected downtimes.*

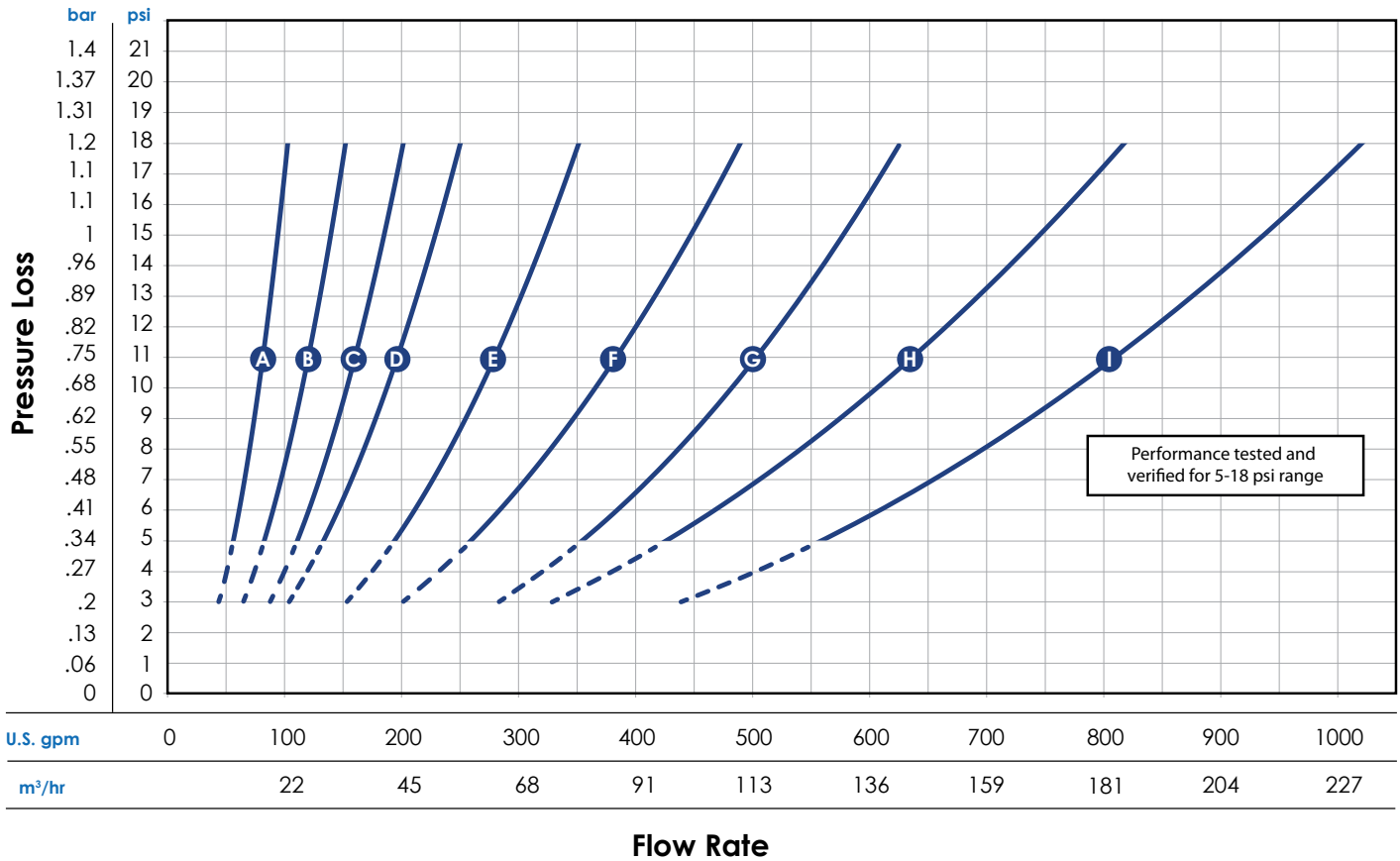
### eJPX Features and Benefits:

- Filter performance rated to remove 98% of all solids 44 micron (325 mesh), 2.6 specific gravity, and larger in a single pass.
- No moving parts to wear out; no barriers or media to replace.
- Low and steady pressure loss; as low as 3 psi.
- Continuous filtration and no backwashing.
- SmartPurge™ port built into each model - allows for quick installation of SmartPurge™ System.
- Available in vertical and low-profile configurations.
- Optional materials of construction and ASME code available.
- Maintain design efficiency of downstream heat transfer surfaces.
- ANSI/DIN/JIS flanges available.

Purge Valves		
 <p><b>SmartPurge™ Sensor</b></p>	 <p><b>AKE Valve</b></p>	 <p><b>ABV Valve</b></p>
	 <p><b>AFS Valve</b></p>	 <p><b>APP Valve</b></p>

# Flow Rates & Specifications

## FLOW VS. PRESSURE LOSS CHART

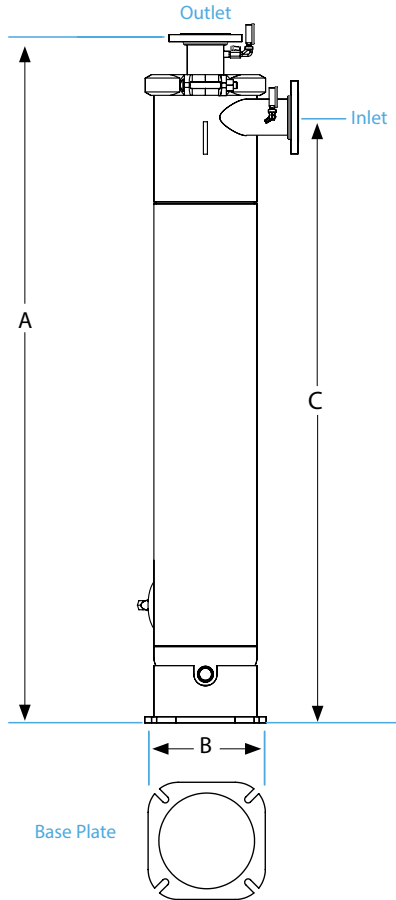


- A** eJPX-0055-V    **B** eJPX-0080-V    **C** eJPX-0110-V    **D** eJPX-0135-V    **E** eJPX-0195-L/V  
**F** eJPX-0250-L/V    **G** eJPX-0350-L/V    **H** eJPX-0425-L/V    **I** eJPX-0560-L/V

## SPECIFICATIONS

Model	Flow Range		Inlet/Outlet	Purge Size NPT	Solids Collection Capacity		Dry Weight		Weight w/ Water	
	US gpm	m³/hr			in	in	gal	liters	lbs	kg
eJPX-0055	55-100	12-22	1-1/2"	3/4"	0.6	2.4	187	85	258	117
eJPX-0080	80-150	18-34	2"	3/4"	0.6	2.4	228	103	315	143
eJPX-0110	110-200	25-45	2-1/2"	1-1/2"	1.1	4.3	345	156	496	225
eJPX-0135	135-250	30-56	3"	1-1/2"	1.1	4.3	380	172	554	251
eJPX-0195-V	195-350	44-79	4"	1-1/2"	1.7	6.6	541	245	820	372
eJPX-0195-L	195-350	44-79	4"	1-1/2"	1.7	6.6	584	265	863	391
eJPX-0250-V	250-490	56-111	4"	1-1/2"	1.9	7.1	548	249	851	386
eJPX-0250-L	250-490	56-111	4"	1-1/2"	1.9	7.1	591	268	894	406
eJPX-0350-V	350-650	79-147	4"	1-1/2"	4.1	15.7	862	391	1467	665
eJPX-0350-L	350-650	79-147	4"	1-1/2"	4.1	15.7	860	390	1465	665
eJPX-0425-V	425-820	96-186	6"	1-1/2"	5.8	22.1	1122	509	2005	909
eJPX-0425-L	425-820	96-186	6"	1-1/2"	5.8	22.1	1100	499	1983	899
eJPX-0560-V	560-1030	127-233	6"	1-1/2"	7.6	28.9	1366	620	2558	1160
eJPX-0560-L	560-1030	127-233	6"	1-1/2"	7.6	28.9	1343	609	2535	1150

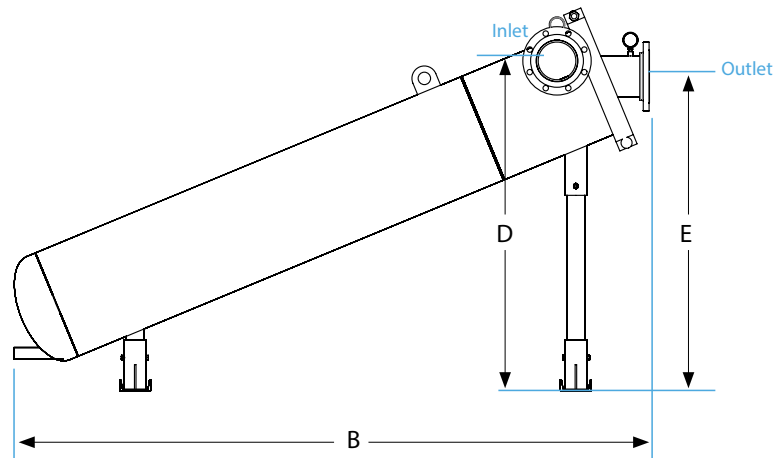
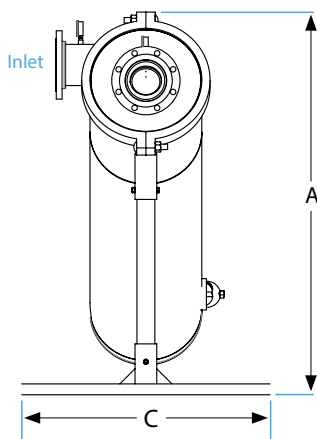
## eJPX Vertical Separator



### VERTICAL MODELS & DIMENSIONS

Model	A		B		C	
	in	mm	in	mm	in	mm
eJPX-0055-V	44	1114	13	330	36	921
eJPX-0080-V	49	1254	13	330	42	1057
eJPX-0110-V	63	1597	13	330	54	1368
eJPX-0135-V	70	1786	13	330	61	1548
eJPX-0195-V	79	2018	16	400	69	1743
eJPX-0250-V	85	2169	16	400	75	1897
eJPX-0350-V	100	2542	19	483	89	2265
eJPX-0425-V	113	2873	22	559	101	2553
eJPX-0560-V	125	3183	24	610	113	2862

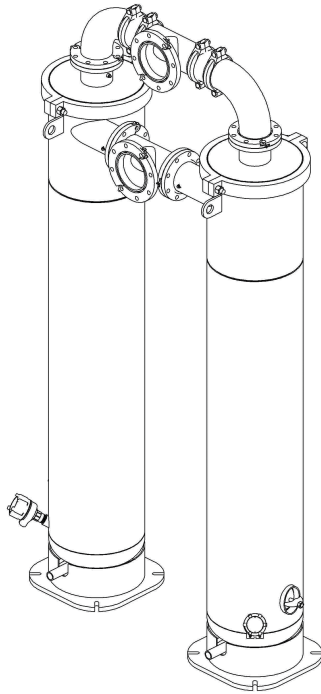
## eJPX Low Profile Separator



### LOW PROFILE MODELS & DIMENSIONS

Model	A		B		C		D		E	
	in	mm	in	mm	in	mm	in	mm	in	mm
eJPX-0195-L	45	1151	75	1899	40	1016	39	979	37	945
eJPX-0250-L	47	1203	80	2030	40	1016	41	1035	39	997
eJPX-0350-L	57	1437	92	2345	40	1016	49	1245	46	1178
eJPX-0425-L	63	1594	103	2627	40	1016	54	1370	52	1316
eJPX-0560-L	70	1776	116	2934	40	1016	60	1530	57	1456

# Higher Flow Rates



## Manifolding in Parallel for High Flow Rates

eJPX Separators can be manifolded together to achieve higher flow rates. LAKOS provides all necessary piping to connect separators to a single inlet/outlet.

Example: Two eJPX-0560-V Separators increase flow range to 1120-2060 US gpm (254 – 468 m<sup>3</sup>/hr)

## Purging Options *(Maximum pressure rating varies by valve)*

### SmartPurge™ Purge Sensor



#### SmartPurge™

**LAKOS SmartPurge™ Sensor** – detects solids level within the LAKOS eJPX Separator and activates automated purge. More efficient purge cycles leads to labor and energy savings.

- Separator purges only when required, reducing energy costs, fluid loss and maintenance time
  - 304 stainless steel
  - Vibrating blade tuned to sense changes in solids level within the LAKOS Separator
  - Failsafe mode to warn of improper operation
  - User adjustable timed purges
  - Works with all LAKOS purge accessories
- Refer to form LS-972 for details.

### Ball Valves



#### AFS Valve

**AutoPurge-Fail Safe Pneumatic Ball Valves** – Provides the added safety of closing the valve during a power failure. Compressed air and electricity are required. Refer to form LS-356 for details.



#### ABV Valve

**AutoPurge-Ball Valves** – Requires only electricity to actuate the valve according to programmed purge frequency and duration. Refer to form LS-238 for details.

### Pinch Valves



#### APP Valve

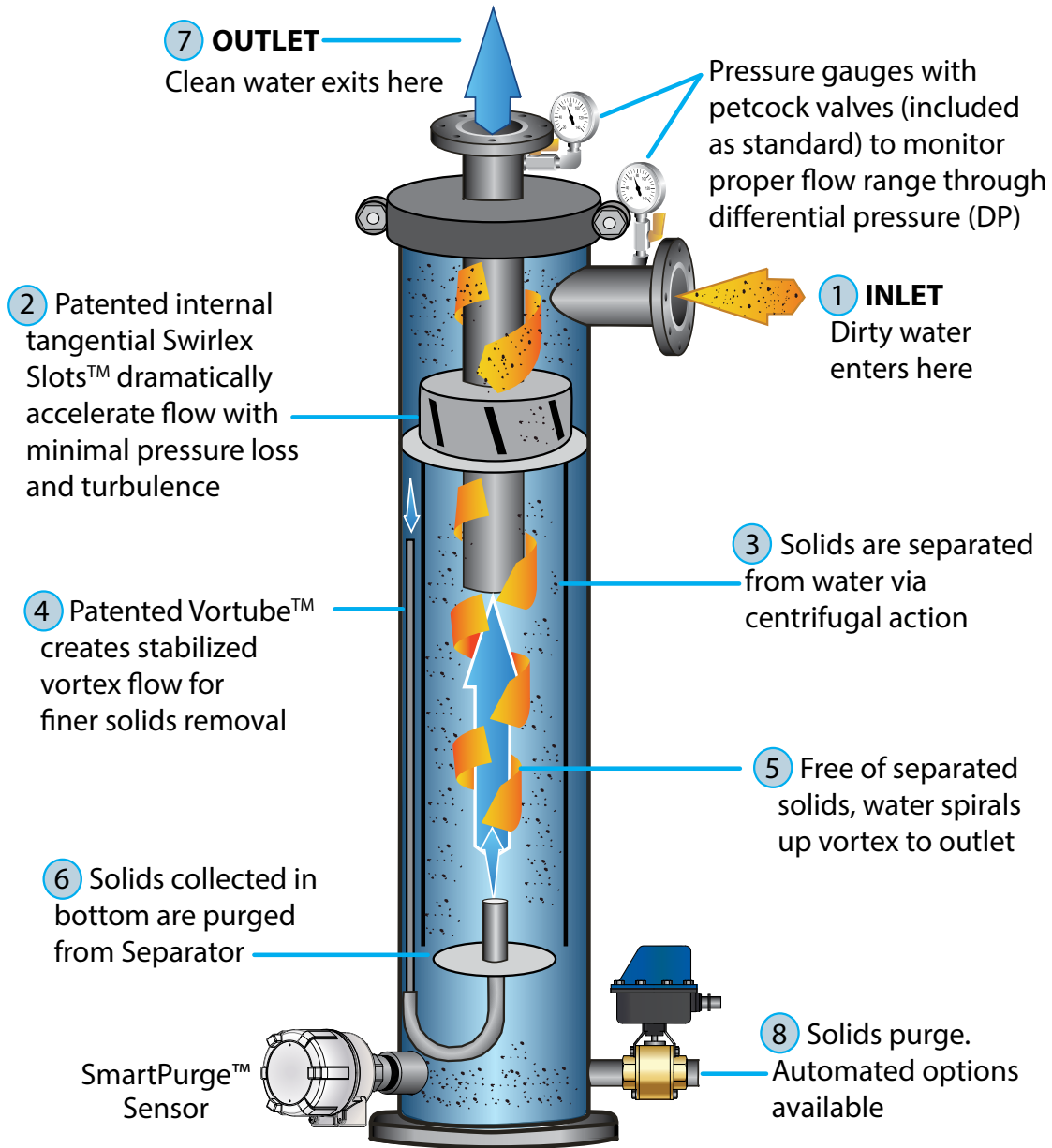
**AutoPurge-Pneumatic Pinch Valves** – Preferred technique for durability and abrasive solids. Requires electricity for the programmable controller and compressed air to operate the valve. Refer to form LS-237 for details.



#### AKE Valve

**AKE Pinch Valve** – Features heavy-wall rubber construction for extended duty in tough applications. Requires electricity for the programmable controller to operate. No compressed air requirement. Refer to form LS-729 for details.

# How It Works



LAKOS eJPX Separators feature improved internals and increased efficiencies as compared to our JPX Separators. To learn more about how our JPX Separators operate, see LAKOS Literature LS-631 & LS-632.

**2 PATENTED SWIRLEX SLOT**

LAKOS Separators use slots to accelerate liquid and minimize turbulence - allowing highly efficient centrifugal separation of solids from liquids.

**3 INTERNAL BARREL**

Proprietary lower vortex stabilization methodology further enhances solids separation.

**4 PATENTED VORTUBE**

Patented Vortube geometry capitalizes on strong pressure gradient present at the center of the vortex to effectively pull finer solids into the collection chamber.

# Independent Testing

## Filtration Test completed on Lakos Separator – eJPX-0560

The filter assembly was installed with test components defined as follows installed in the following order starting upstream:

- 1) 12" Venturi-type flow meter
- 2) 55 micron disc filter assembly
- 3) 6" pipe spool with sand-injection pump
- 4) Separator under test
- 5) 6" pipe spool
- 6) 20 micron disc filter assembly

**Test Conditions: 950 gpm, 15.5 psi loss**

### Test #1 Sample Breakdown (Grams):

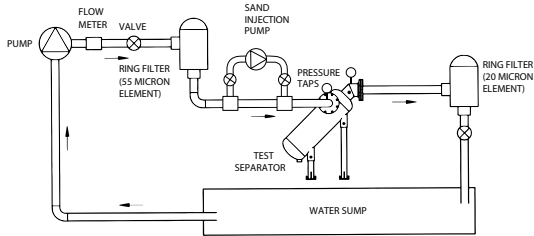
45-75 micron: 200  
Recovered grams from downstream filters: 7.9  
Filter efficiency:  $192.1 / 200.0 = 96.1\%$   
Note: Media: Quartz, Silicon Dioxide, specific gravity: 2.6

### Test #2 Sample Breakdown (Grams):

22-32 micron: 700  
Recovered grams from downstream filters: 7.3  
Filter efficiency:  $692.7 / 700.0 = 99.0\%$   
Note: Media: Alloy Fe45Si, specific gravity: 5.4

### Test #3 Sample Breakdown (Grams):

22-32 micron: 700  
Recovered grams from downstream filters: 2.3  
Filter efficiency:  $697.7 / 700.0 = 99.7\%$   
Note: Media: Alloy 17-4 PH, specific gravity: 7.8



LAKOS Separators have been independently tested and certified by an independent testing agency, the International Center for Water Technology (ICWT), confirming our separators' filtration performance and capability to remove troublesome particle matter from pumped water.

For over 30 years the internationally recognized ICWT/CIT Testing Laboratories have been providing independent, third party testing to a wide range of irrigation and other industries around the world.

ICWT has experience with hydraulics, pumps, filters, and valves. Fluid component testing provides manufacturers, distributors and end-users with accurate performance data for applicability assessment and enable product development. ICWT was recently certified by IAPMO R&T - North America's premier third party certification body for plumbing and mechanical products. More information about the testing agency and testing process can be found at [www.californiawater.org](http://www.californiawater.org).

This test agency is available and approachable to confirm its test methodologies and results.

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Claude Laval Corporation, headquartered in Fresno California since 1972, is recognized worldwide for engineering, manufacturing and marketing the original centrifugal action solids from liquids separator and being the world-wide leader in cyclonic separation technology.

LAKOS Separators are manufactured in the USA.

All LAKOS eJPX Separators are warranted for five (5) years from date of delivery. For detailed warranty information visit <http://www.lakos.com>

LAKOS Separators are manufactured and sold under one or more of the following U.S. Patents: 5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,167,960; 6,202,543; 7,000,782; 7,032,760 and corresponding foreign patents, other U.S. and foreign patents pending.

LAKOS®, SmartPurge™, Swirlax Slots™ and Vortube™ are trademarks of Claude Laval Corporation.

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LS-970 (Rev. 11/14)