

Liquid/Gas Jet Solid Ejectors

Liquid/Gas Jet Solid Ejectors operate with liquids or gases as driving force for pumping and conveying flowable solids. The motive fluid is expanded across the nozzle creating a vacuum in the suction chamber drawing the solids material into the pump. The mixture of motive fluid and entrained solids are carried through the diffuser section of the ejector and discharged into the conveying system.



<u>General Usage</u>	<u>Typical Applications in Industries</u>
<p>They are used to pump and convey sand, gravel, salt, activated carbon, ion exchange resin, pellets, powders, particulates and other types of solids.</p>	<ul style="list-style-type: none"> ❖ Filling and emptying reactors with reactor mass or marble gravel <u>in decarbonizing and de-acidifying plants</u> ❖ Adding precipitating agents in <u>dirty water and effluent water treatment</u> ❖ <u>Transporting liquid slurries</u> in all industries ❖ <u>Wetting solids</u> ❖ Conveying solids in <u>plastic/resin industry, food industry, pharmaceutical, particulate chemical manufacturing, mining operations, foundries, sugar/salt mills and fertilizer handling operations</u> ❖ Pumping water/solids mixtures out of the deep ❖ Conveying ash/air mixtures from <u>incineration systems on passenger ships</u> ❖ Transfer of ion exchange resin into packed towers for water purification and softening in <u>nuclear and water industries</u> ❖ <u>Producing emulsions</u>
<p><u>Advantages</u></p>	<ul style="list-style-type: none"> ❖ No moving parts ❖ Low maintenance cost ❖ Simple and compact ❖ Long lifetime ❖ Safe and reliable operation ❖ Manufactured from various materials



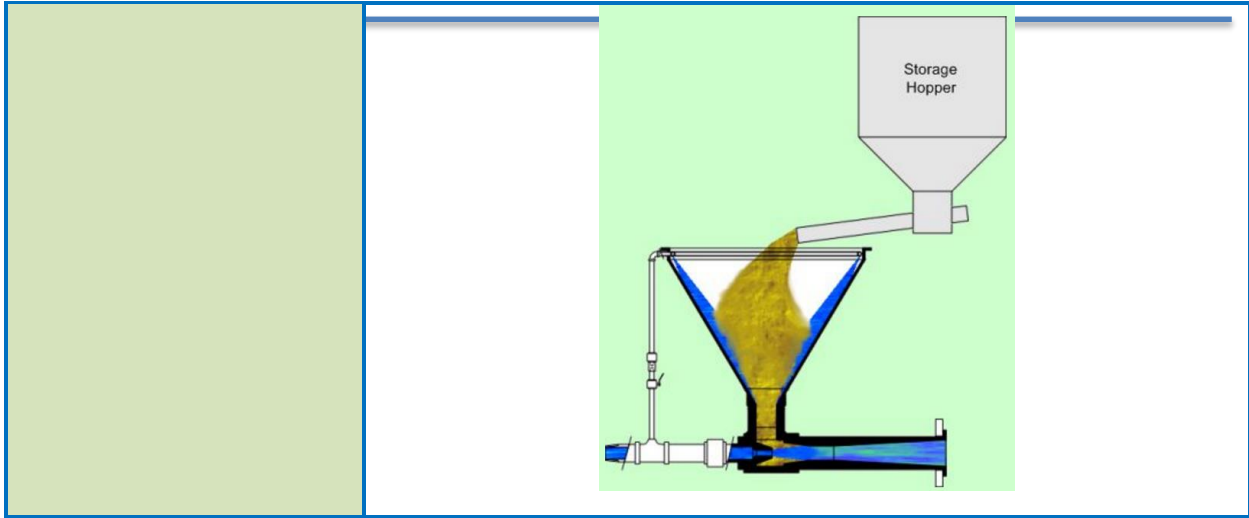
	❖ Clean, environmentally acceptable and simple to maintain
--	--

<u>Applicable Materials</u>	<ul style="list-style-type: none"> ❖ Stainless Steel ❖ Carbon Steel ❖ PTFE ❖ Hastelloy
-----------------------------	--

<u>Design Codes/ Standards</u>	<u>Quality Assurance</u>
<ul style="list-style-type: none"> ❖ ASME Sec. VIII ❖ ASME B.31.1 ❖ ASME B.31.3 	

<u>Kara Liquid/Gas Jet Solid Ejectors Advantages:</u>	<ul style="list-style-type: none"> ❖ Custom and standard design ❖ Performance Test at shop ❖ Ability to produce the ejector with different types of materials proportional to corrosive/erosive medium or environment ❖ Effectively handling a wide range of materials ❖ Quick & easy installation ❖ Zero vibrations and silent operation ❖ Reduce or eliminate product damage ❖ Convey irregular shape solid materials ❖ Self-cleaning mode of operation
---	--

<u>Kara Sanat Solid Ejector Types:</u>	
<u>Liquid Jet Solid Ejector</u>	<p>Liquid jet solid ejectors are designed for conveying flowable solids with a driving liquid. The material to be conveyed can flow through a hopper into the jet pump. Depending upon the material to be conveyed, rinse water can be sprayed into the hopper in order to maintain a continuous and constant flow. The mixture of liquid and material can be conveyed directly to the point of application, by pipe or hose, without the need of another pump.</p>

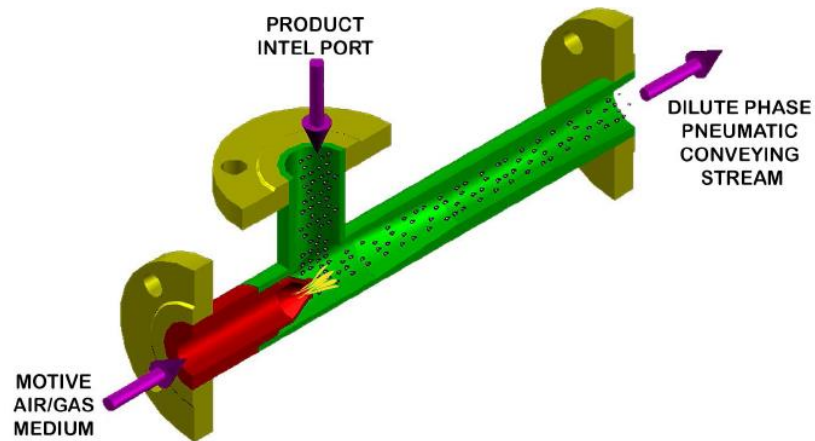


They are used to transport dry solids using a gas (e.g., air) as their motive source. Standard ejectors use low pressure/high volume blowers as the compressed gas source. Solids flow rate and conveying distance are a function of ejector selection, as well as material properties, and downstream piping considerations. Depending upon the nature and bulk density of the materials to be conveyed and the available pressure, the size and the conveying capacity of the ejectors differ.

Our ejectors combine the most efficient ratio of motive compressed gas consumption with available suction capacity and discharge pressure. They are commonly installed in the following solid processing equipments:

- Bins & hoppers
- Mixers, grinders & mills
- Bag house & dust collectors
- Classifiers/screener outlets

Gas Jet Solid Ejector





Specifications of one Type

Item			
Project			
Purchaser			

Previous Projects

Equipment photos / Operation photos / Applications photos