

The **RADER** EDK Feeder



Rotary Feeder / Delumper

Overview of the EDK Feeder/Delumper

Rader has been successfully engineering, supplying and installing rotary airlock feeders for over 50 years. The EDK Rotary Feeder/Delumper is a product born of that experience.

This particular feeder was designed as a response to clients in the plastics industry with a need for an efficient airlock that has shearing, variable speed, and anti-stall capabilities.

The EDK Feeder comes in varying sizes depending on client needs.

Each feeder is custom designed to meet the specific application. The supply of the product may range from the bare feeder to fully engineered systems. Built for rugged applications, the housing of the EDK Feeder is designed for up to 25 psig (1.7 bars). The shaft and rotating assembly are heavy duty and designed for long service life.

The EDK design uses two opposing shear knives. When the anti-stall control system senses a stall (high motor load), the rotor direction is automatically reversed. If successful in clearing the jam, the rotor returns to normal rotation. If not, it will continue to reverse direction up to six times or three cycles before shutting down and alerting the operator.

The main components of the EDK Feeder/Delumper are the rotary feeder assembly, the hydraulic power unit and the control system.

Each system undergoes a rigid quality control test to assure industry standards are met.

Features and Benefits

- » Anti-stall
- » High shearing energy
- » Custom designs
- » Rotor reverses to clear jams
- » 3,000 psi of hydraulic pressure
- » Special control packages
- » Optional stainless steel components
- » Custom transitions
- » Accurate Metering
- » Variable Speed Control
- » Reliable Shaft Speed Monitoring

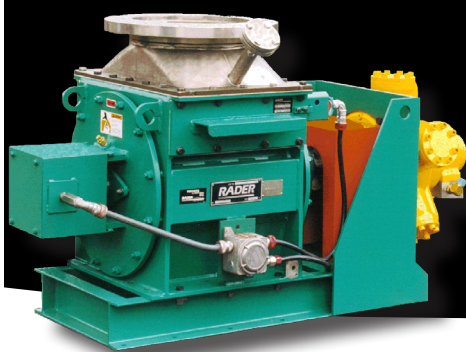
Why two knives?

In the event of an “upset condition” in the process, the base resin material could form large “lumps” or “sheets” which could jam a standard airlock. This would require shut down and cleanout before the system could be restarted.

Previously this part of the process had been handled by the combined use of a separate delumper and a metering airlock.

The EDK Feeder, incorporated with a second knife and reversing control program, provides multiple opportunities to shear the material. The success of the shearing capabilities, in combination with speed control, led to the use of the feeder as a metering device.

Precision engineered for reliable performance.



The RADER EDK Feeder

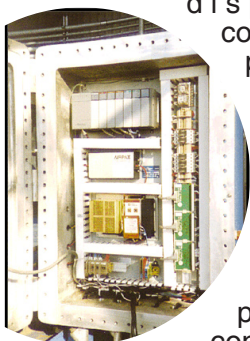
Weight

Size	Feeder		Hydraulic Unit	
	lbs.	kg.	lbs.	kg.
20x20	3280	1491	1100	500
20x30	3715	1689	1100	500
25x30	4300	1955	1100	500
30x30	6010	2732	1100	500

The Control System

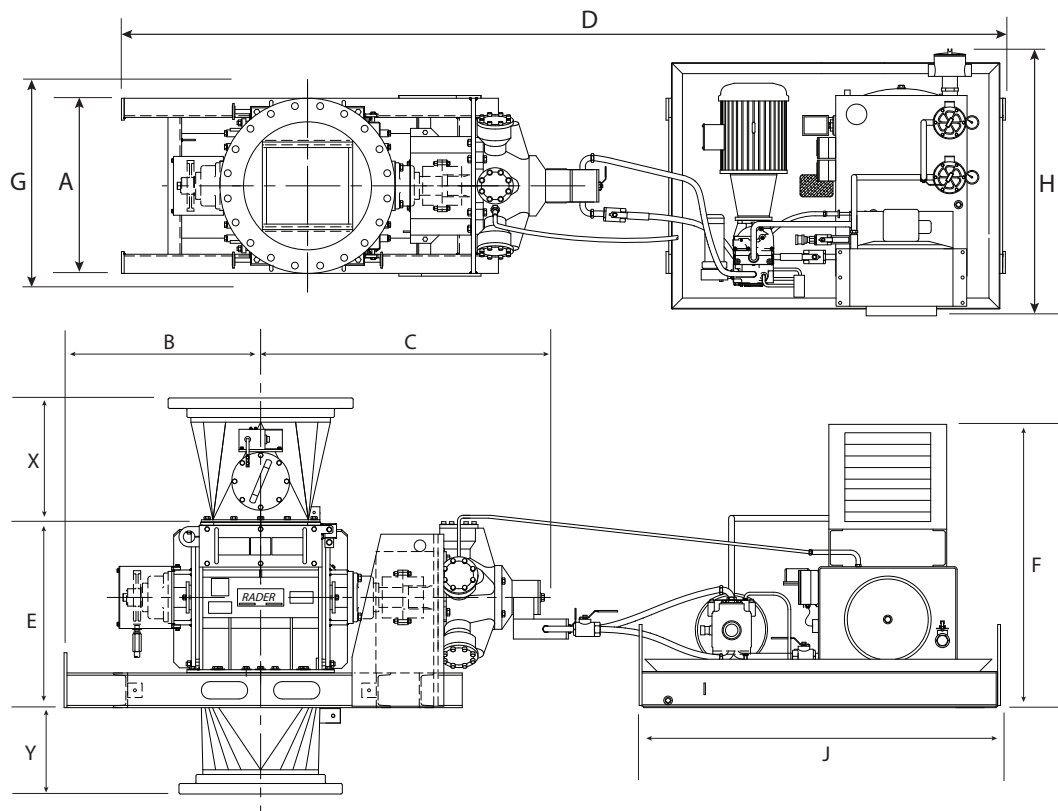
The main purpose of the control system is to regulate the speed of the feeder, and in turn, the flow of product. The control system also manages the jam sequence.

The control signal from the PLC is directed to the electronic displacement controller on the pump.



This signal varies the angle and direction of the pump swashplate, and in turn proportionally controls the flow and the resultant pressure of the unit.

The control system also monitors temperature, and oil levels, enabling it to warn the operators of other potential problems through the Rader Supplied Software.



Primary Dimensions

The dimensions shown are related to the Feeder portion of the unit.

Size		A	B	C	D	E	F	G	H	J	X*	Y*
20 x 20	in.	33	34	49.25	162.25	32	49	41	49	62.5	20	14
	mm.	838	864	1251	4121	813	1245	1041	1245	1588	508	365
20 x 30	in.	33	39	54.25	172.25	32	49	41	49	62.5	23	18
	mm.	838	991	1378	4375	813	1245	1041	1245	1588	584	457
25 x 30	in.	33	39	54.25	172.25	38	49	49	49	62.5	23	18
	mm.	838	991	1378	4375	965	1245	1245	1245	1588	584	457
30 x 30	in.	39	40	55	174	44.5	49	59	49	62.5	25	22
	mm.	991	1016	1397	4420	1130	1245	1499	1245	1588	635	559

Contact Us



Rader has been manufacturing EDK Feeder/Delumpers for over 20 years and has over 160 installations in operation. To learn more about the Rader EDK Feeder/Delumper, contact our sales office at (864) 476-7523.

Rader Companies is a part of K-Tron International. K-Tron International, Inc. and its subsidiaries design, produce, market and service material handling equipment and systems for a wide variety of industrial markets. The Company has manufacturing facilities in the United States, Switzerland, the United Kingdom and the People's Republic of China, and its equipment is sold throughout the world.

Rader EDK Feeder | 398 Willis Road • Woodruff • SC • 29388 • (800) 615-9296 • sales@jeffreyrader.com