

APPLICATION BULLETIN

BACKGROUND/ CHALLENGE

A pasta manufacturing company, headquartered in Italy, needed to eliminate insect infestation of their semolina flour in all stages of development. Since their product is 100-percent organic, chemical treatment was not an option. The infestation would have to be remediated mechanically, without the use of grinding. As the latter process alters the color of semolina, grinding is unacceptable. Equipment for a 100-percent mechanical kill would have to be carefully specified as the complete life cycle (a possible 5 generations per year) of the insects, eggs and larvae must be eliminated.



STURTEVANT® PERFORMANCE

Sturtevant offers an in-house test lab facility where customers can work closely with Sturtevant engineers to verify results. The Sturtevant Infestroyer® was specified for the application. Tests were performed in a #15 Infestroyer. Testing was initially conducted without infestation to set parameters and to prove that the unit would not grind the semolina and lower the Particle Size Distribution (PSD). The semolina color was maintained without reduction of particle size and with no change of temperature or wear observed.

In later tests, containers of mixed infestation were blended into each feed sample. After testing, black specs were observed in the semolina. The customer performed an infestation analysis by using a microscope. After an incubation period, tests revealed a 100-percent kill of all insects, eggs and larvae.

EQUIPMENT RECOMMENDATIONS

INFESTROYER®

MILL SIZE	MOTOR POWER RANGE (HP)	TONS PER HOUR	APPROXIMATE WEIGHT		OVERALL DIMENSIONS L x W x H	
			(LBS)	(KG)	(IN)	(MM)
#15 Infestroyer	5 - 15	2.5 - 7.5	525	238	60" x 31" x 50"	1524 x 787 x 1270
#20 Infestroyer	20 - 60	10 - 30	2,200	998	72" x 36" x 72"	1829 x 914 x 1829
#40 Infestroyer	75 - 150	37.5 - 75	5,350	2,427	102" x 52" x 82"	2591 x 1329 x 2083

Measurements are for general reference only. Please consult dimensional drawings for exact measurements.

SUMMARY

To meet the required capacity of 45 to 50 tons per hour, the pasta manufacturer would ultimately install a Model #40 Infestroyer, offering 150 HP and the ability to process up to 75 tons per hour. The Sturtevant Infestroyer successfully kills all infestation without grinding the semolina, preserving the color consistency of the product. In addition, the customer's organic product will not be compromised since chemical treatment is not needed to control infestation.