

**Substrate Digestion that Pays Off:  
More Biogas - More Yield**

# HAMMER MILL IMPRA

The hammer mill Impra is specially designed for digesting fermentation substrates from biogas plants to increase digester output. Efficiently, the machine only processes what your biogas plant cannot manage on its own. Substrate is removed from the fermenter, processed and then fed back or into the secondary fermenter.



## Your Advantages

### Reduce Substrate Costs, Increase Fermenter Capacity, Reduce Load on the Fermentation

- Up to 15 % more biogas with the same raw material input
- Impra pays for itself after a few years
- Makes even difficult substrates usable such as grass and manure
- Typical substrates: clover, silage, dung or straw, crops such as grain, oilseeds, potatoes and beet
- More output, higher space load possible
- Energy savings through less viscosity with Impra
  - Better pumping and stirring properties
  - No floating layer
- Energy efficiency, interval operation enables load management, savings on pumps and agitators

### Reliable Operation and Long Durability

- Robust welded construction for continuous industrial operation (24/7)
- Made entirely of corrosion-resistant stainless steel
- Proven many times in practical use since 2011

### High Availability with Low Downtimes

- High contaminant tolerance due to integrated foreign particle separator
- Minimal effort for maintenance and wear

### High Safety of Personnel and Plant

- Standstill monitoring with door safety lock
- Discharge hopper with overflow protection
- Sensors for bearing temperature monitoring

## Technical Details

Type	IMPRA 3	IMPRA 5
Throughput capacity (m <sup>3</sup> /h)	10 - 20	15 - 40
Energy consumption (kW/m <sup>3</sup> ) (compensated by savings on pumps and agitators)	2 - 4	2 - 4
Dimensions and Weight		
Length (approx. mm)	2700	3200
Width (approx. mm)	1200	1200
Height (approx. mm)	2500	2500
Weight (approx. kg)	1650	2550
Drive		
Motor hammer mill Impra (kW)	37	75
Motor pump (kW)	5.5	11

## Standard Supply and Options

### Standard Scope of Supply:

- Stainless steel parts pickled and passivated
- Flexible cam coupling (N-EUPEX) with coupling guard
- Support frame made of sectional steel, mounted on vibration dampers
- Automatic door locking with standstill monitoring
- Electrical components completely wired to terminal boxes
- Drive motor B3
- Sensors for bearing temperature monitoring
- Inlet funnel with connection flange
- Discharge hopper with overflow protection
- Compensator for transition hopper-pump
- Eccentric screw pump
- 1 set of beaters and screens, ready mounted
- 1 set special tools



Fermentation substrate before and after disintegration with Impra



**A** Impurities are sorted out



**B** Discharge pump transports processed substrate to AD plant

### Integration of Impra in the Biogas Plant

