THE PATENTED IMPRASYN® SYSTEM

MORE POWER FOR YOUR BIOGAS PLANT

The patented IMPRASYN® system involves a wet treatment process that uses a simple technique to break down solids (e.g. silage) and liquids together in a single processing stage down to their cell structures and mixes in biotechnological additives.

The fibres of a substrate are shortened and separated from one another at the same time and therefore provide the optimum surface for the treated.

Further nutrients are immediately accessible to the micro-organisms. The system achieves a complete breakdown of the usable organic material.

The combined mechanical and biological "decomposition" also allows the utilisation of raw materials seldom used before in biogas systems, such as straw, lucerne, hay, miscanthus or igniscum.

IMPRASYN® is just as suitable for field crops, such as potatoes or turnips, and for grains, millet, oil crops and other internationally available starch plants. In every case there is a vigorous anaerobic breakdown of the available carbon compounds accompanied by a particularly rapid production of biogas, i.e. an increase in the quality of gas per unit of time.

- Lower pump pressures with consequential energy savings
- Shorter stirring intervals for the same throughmixing and therefore energy savings
- Less wear throughout the whole process, espe cially in the pipework and pumps
- The natural upward movement of gas (bubble form ation) takes place even with high organic loading rates
- Scum formation is minimised and therefore e.g. sucking material out of the final storage tank and application on to the fields are simpler

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THE REDUCED RESIDENCE TIME AND VISCOSITY LEAD TO:

- An improved use of the fermenter volume in existing installations, i.e. more gas from the same digester
- Substantially lower capital costs for tank construction in the case of new systems

ADVANTAGES OF IMPRASYN® COMPARED WITH OTHER PROCESSES:

- Specified degree of digestion (particle size distribution) in continuous operation
- High tolerance of contaminants, e.g. iron, minerals and plastics. Integrated separator for foreign bodies
- Minimum servicing costs, low down-times, i.e. wear parts can be replaced in a few minutes
- A low specific energy consumption in relation to optimised energy yield from many different input materials (substrates - worldwide), which provides extraordinary flexibility
- Thus the IMPRASYN® system can be used before the first fermentation or even later in the biogas process and optimised to make the best possible use

TYP	IMPRA 3M	IMPRA 5M	IMPRA 3C	IMPRA 5C
Dimensions (m)	2,7 x 1,2 x 2,5	2,7 x 1,2 x 2,5	7 x 3 x 3	7 x 3 x 3
weigth (kg)	1.650	2.550	8.400*	9.100*
space required for maintenance	both sides 1 m	both sides 1m	N/A	N/A
throughput (m³/h)	10-20	15-40	10-20	15-40
motor power (kW)	37	75	37	75
energy consumption (kW/m³)	2-4**	2-4**	2-4**	2-4**

* PLUG and PLAY version. A Container is fully equipped with switchgear cabinet, additive tank, valve techhnology, pumps, all piping an wiring
** is compensated by energy savings at the pump an agitators of the entire AD plant

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