

**Fast, safe and complete removal of  
plastic and other organic contaminations  
from metal parts and tools**



INDIRECTLY  
ELECTRIC HEATED

# SYSTEM INNOVACLEAN

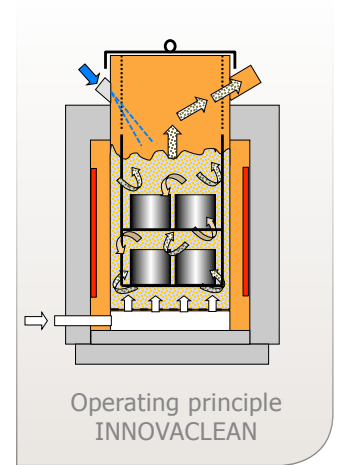
## OPERATING PRINCIPLE

INNOVACLEAN removes all organic contamination including halogenated polymers from heat resistant metal parts by thermal decomposition in a fluidized bed.

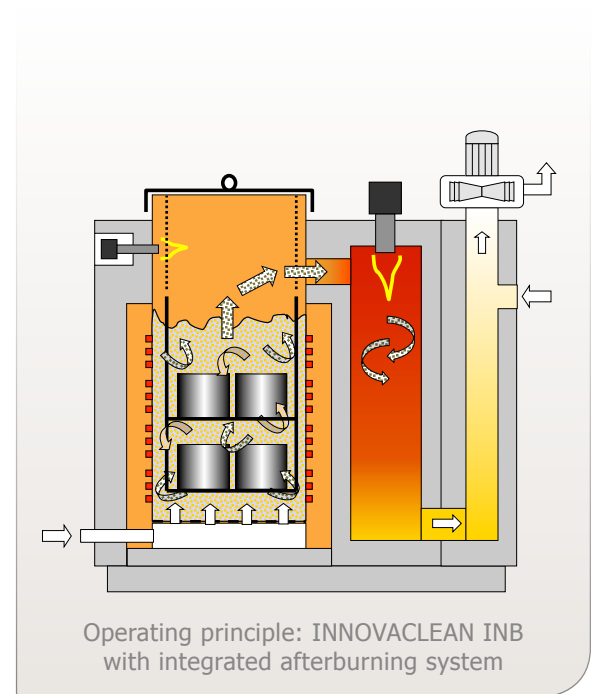
Cleaning time: 1 – 4 h



INNOVACLEAN ECO1



INNOVACLEAN  
2448-INB



# FLUIDIZED BED CLEANING PROCESS



Loading in  
hot system

DECOMPOSING  
of contamination  
and CLEANING

Unloading

Post  
treatment

## APPLICATIONS

The most common pieces for cleaning are dies and parts out of the plastics and fiber industry:

- Synthetic fiber and nonwovens
- Polymer production
- Masterbatch production
- Injection moulding
- Extrusion



INNOVACLEAN  
2448-INB-S  
with scrubber

## ADVANTAGES

- Very short cleaning time
- Suitable for all organic resins and polymers (incl. PVC, PTFE, PEEK...)
- Outstanding flexibility
- Perfect cleaning results even inside assembled dies or parts that are highly complex
- Free from carbon residues
- Precise temperature control
- No risk of overheating or distortion
- Perfect off-gas cleaning by optional thermal afterburner and scrubber for halogens
- No organic disposals

## TYPICAL COMPONENTS

Fluidized bed systems are especially recommended for:

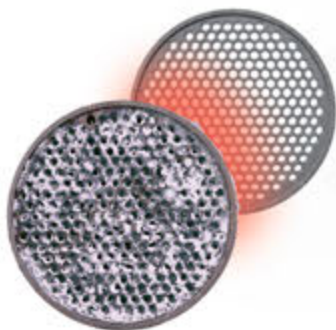
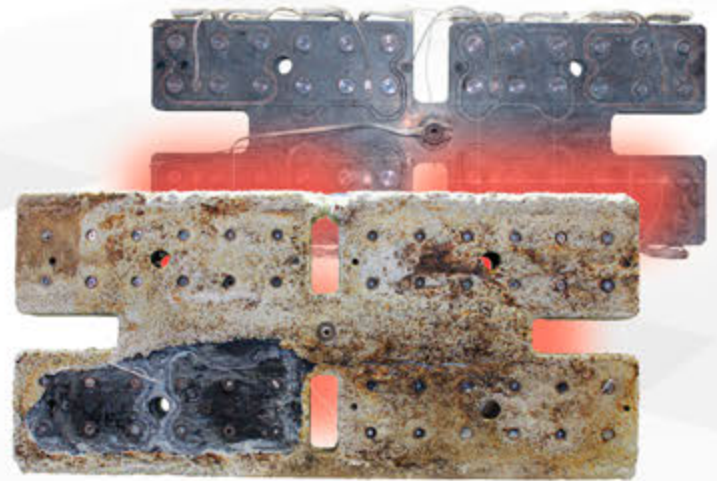
- Spinnerets, assembled spin packs
- Special profile dies
- Pelletizing dies
- Breaker plates
- Hot runners
- Extruder screws, screw elements
- Static mixers
- Starters, alternators, pumps, engines

FAST, SAFE, EFFECTIVE AND GREEN



## TYPICAL POLYMERS

- Halogenated Polymers: PVC, PTFE
- Polysulfides and Polysulfones: PPS, PSU
- Polyetherketones: PAE, PEK, PEEK
- Polyamides: PA6, PA6.6, PA12, PPA
- Polyesters: PET, PBT, PC, PTT, PEN
- Polyolefins: PE, HDPE, PP, PB, EVA, EVOH
- Polyacrylates: PAN, PBA, PMA, PMMA
- Polystyrenes: PS, ABS, SB, SBS, SAN
- Biopolymers: PLA, PEA, PVAL, PPOX
- Polyimides: PI, PBI, PEI, PBO, PMI
- Polyurethanes: PUR, TPA, TPO, TPU
- Other polymers on request



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**SCHWING**  
TECHNOLOGIES

# ACCESSORIES

Depending on the cleaning application a variety of customized accessories and post treatment systems are optionally offered:



Thermal afterburner systems & scrubbers



Loading baskets, tables and racks



Ultrasonic & rinse units



Shot blasting systems



High pressure cleaning equipment



Quality inspection systems

# TECHNICAL DATA OF STANDARD SIZES

INNOVACLEAN	Loading basket (inner dimensions)	Maximum loading	Organic load <sup>1)</sup>	Utility consumption					Total dimensions
				Power	Gas		Compr. air	Water	
Model	L x W/D x H [inch]	[lbs]	[lbs/h]	[kW]	[SCFM]	[kBTU/h]	[SCFM]	[gal/h]	L x W x H [feet]
<b>ECO1</b>	8 x 8 x 12	35	0 - 6	6	-	-	9	1	3 x 3 x 3
<b>ECO3</b>	27 x 8 x 12	108	0 - 6	10	-	-	25	3	5 x 3 x 3
<b>1540</b>	12 x 34	192	0 - 6	14	-	-	17	2	4 x 4 x 5
<b>2040</b>	15 x 34	295	0 - 6	24	-	-	26	3	4 x 4 x 5
<b>2448</b>	19 x 41	496	0 - 15	42	-	-	38	4	5 x 4 x 6
<b>3248</b>	26 x 41	888	0 - 22	63	-	-	68	196 <sup>2)</sup>	5 x 6 x 7
<b>3648</b>	30 x 41	1,113	0 - 22	63	-	-	81	245 <sup>2)</sup>	6 x 6 x 7
... with integrated thermal afterburner									
<b>ECO3-INB</b>	27 x 8 x 12	108	0 - 6	11	1	68	25	3	6 x 5 x 5
<b>1540-INB</b>	12 x 34	192	0 - 6	15	2	119	50	-	6 x 7 x 8
<b>2040-INB</b>	15 x 34	295	0 - 6	20	2	119	59	-	7 x 7 x 8
<b>2448-INB</b>	19 x 41	496	0 - 15	28	2	119	70	-	7 x 7 x 8
<b>3248-INB</b>	26 x 41	888	0 - 22	72	8	410	181	-	10 x 14 x 9
<b>3648-INB</b>	30 x 41	1,113	0 - 22	72	8	410	198	-	10 x 14 x 9

<sup>1)</sup> Depending on capacity of thermal afterburner and type of organic / plastic contamination.

<sup>2)</sup> [lbs/h] – INNOVACLEAN 3248 and 3648 operate with steam inertization.

The data and illustrations in this brochure refer to the date of printing. All data are approximate. SCHWING reserves the right to make any necessary changes at any time and without special notice.

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