

## BENE ACTRON

Filterless high-performance oil separator with safety levels and oil separation

## Technical Product Sheet

**BENE**  
Separa

Maintenance-reduced + lowest cost safety technology for plants requiring high operational security

### Areas of application

Operations with waste water containing oil (e.g., motor vehicle operations in the areas of service, maintenance, repair; community and military operations; industry and industrial businesses).

### Nominal sizes

NG 3 to 60

### Components and equipment features

High-performance oil separator system with filterless coalescence stage (DIN EN 858 Class I) with:

- Sludge trap (S) as sludge collection room with only 50% of the sludge trap content otherwise required by the standard (Exceptions see data table)
- Filterless coalescence separator (I)
- Oil separation
- Oil collection tank
- Sample-taking device (P)

### Development status of the technology: BENE ACTRON

The latest further development of the high-performance separation technology BENE ACTRON offers important features:

- High water and backup security through double-function float protection
- Always only oil in the oil tank
- Emulsion protection owing to virtually oil-free separator surface at all times
- Problem-free maintenance and inspection due to good access
- Uncomplicated installation
- No millimetre-exact flat horizontal sealing blanket required, no specially trained, expensive personnel necessary
- Simple system set-up and commissioning
- Only 2 cm drop in height between inflow and outflow
- Protection during oil accidents owing to second and third oil storage
- No risk of blockage due to hydrodynamic coalescence
- Continuous oil removal to the integrated oil tank (max. 50 ml of oil only on the separator surface)

### Functional description

BENE ACTRON separates substances which can be settled out (sludges) and light liquids (oils) from water.



BENE ACTRON (Application example)

Oil separation exploiting hydrodynamic coalescence functions without a filter in accordance with the latest findings in flow mechanics. The ACTRON system ensures trouble-free operation as it works highly efficiently without spontaneous and creeping blockages of coalescence inlays.

**Oil separation:** Oil which rises to the top is immediately conveyed to an integrated oil tank by the automatic separation unit. Naturally without outside power and complicated control units. The ACTRON floater protection on the oil tank prevents oil escape. This secures many operating circumstances during which oil would normally be carried out of the separator. The operator enjoys far greater security and is well protected from oil risks. When the oil tank is full, the oil can be pumped out by a removal device. Since the oil contains virtually no water, disposal costs are substantially reduced.

**Sludge room:** The latest achievement of the BENE developers is the reduction of the sludge trap to only one sludge collection room. The operator immediately saves half of the disposal costs of the usual sludge trap.

### Benefits of BENE ACTRON

- Filterless coalescence stage therefore
  - No filter blockage
  - No filter cleaning
  - No filter replacement
  - No filter disposal
  - No expensive interruption of operating processes!
- Highest environmental protection due to oil separation, so no oil escape
  - From emulsion formation (soaps, etc.)
  - From high water
  - From canal backup
  - From oil accidents
- Highest cost security due to oil separation
  - Only disposal of the oil from the oil tank; no expensive disposal of an oil-water mixture
  - Double-function float prevents water from entering the oil tank
  - Protection from damage to reputation and clean-up expenses because oil cannot escape
  - All of the oil is stored in a separate oil tank in the separator!
- Sludge collection room with only 50% of the sludge trap volume required by the standard, therefore:
  - Much lower disposal costs when sludge trap is full (50% savings!)
  - Lower total volume and thus lower expenses when installing the separator system
  - High savings in costs due to the sludge collection room
- Independent assessment from the LGA Würzburg and general construction permits from the DIBt

The high-performance separator BENE ACTRON has general construction permits (Z-54.8-350, Z-54.8-123\*, Z-54.8-361\*\*) from the DIBt (Deutsches Institut für Bautechnik, Berlin) and an independent function assessment from the LGA Würzburg. Its oil separation device is protected by international patents
- Handling and maintenance

BENE ACTRON has been designed so that operation, handling and maintenance are the best possible.



Maintenance-reduced + lowest cost safety technology for plants requiring high operational security

#### Text for bids

Filterless high-performance separator BENE ACTRON \_\_\_ / \_\_\_ / \_\_\_ (NG/SSR/oil tank) or equivalent.

DIBt, No.: \_\_\_\_\_, S-I-P system, with:

- Light fluid drainage device
- Oil collection container (closed oil tank),
- Without filter or carrier material
- With sludge collection room (SSR) = only 50% of the sludge trap required by DIN 1999 / EN 858 permissible

Additional safety oil storage

Minimum: \_\_\_\_\_ l,

Total oil storage

Minimum: \_\_\_\_\_ l.

With assessment from LGA Würzburg for verification of the function of the light fluid drainage device:

- Protection due to safety valve on the oil tank: prevents inflow of water and escape of oil.
- Drop in height between inflow and outflow maximum 2 cm.
- Settling-resistant system which remains functional even if the container is not level (e.g., due to settlement or uneven surface of up to 10 cm).

With self-activating seal on outflow side, can be removed without tools (in accordance with DIN 1999, Part 1/EN 858, Part 1).

Sealing between transition monolith / reduction plate tested for 0.5 bar.

Maximum single weight

\_\_\_\_\_ to.

Inflow depth Z= \_\_\_\_\_ m,

Pipe connections EN 295 DN \_\_\_\_\_ mm, Cover Class D.

Announced make:

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#### BENE Services

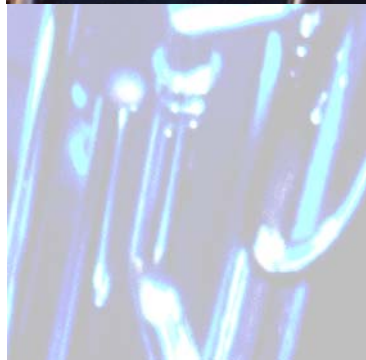
We are always prepared to offer additional services to our customers:

- Installation supervision
- Commissioning
- Instruction
- Expert training
- Maintenance and inspection

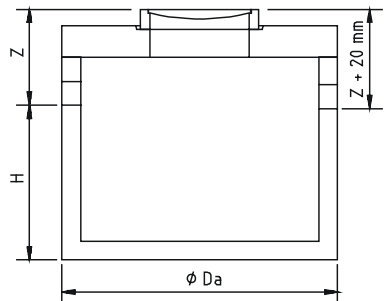
A technical advisor from BENE will be glad to visit your location for a non-binding consultation. Just give us a call.

#### Stainless steel Separators

BENE Separators are also available in stainless steel. These plants have to be preferred, when the installation shall occur above ground.



NG	nominal size	Nominal sludge trap volume in accordance with DIN EN 858	Sludge collecting room	Oil tank volume	Additional second safety storage	Outside diameter Da	DN inflow and outflow	H	Inflow depth (standard) Z****	Maximum single weight	Total weight
		[l]	[l]	[l]	[l]	[m]	[mm]	[m]	[m]	[to]	[to]
3	2030	2030	300	823	2,24	150	1,87	0,70	5,51	7,38	
3*	2500	1250	2600	468	2,24	150	2,32	0,70	6,71	8,57	
3	5970	5970	600	1096	2,24	150	2,77	0,70	7,31	9,41	
4*	2030	2030	300	823	2,24	150	1,87	0,70	5,51	7,38	
4	2500	1250	2600	468	2,24	150	2,32	0,70	6,71	8,57	
4	5970	5970	600	1096	2,24	150	2,77	0,70	7,31	9,41	
6	2030	2030	300	823	2,24	150	1,87	0,70	5,51	7,38	
6*	2500	1250	2600	468	2,24	150	2,32	0,70	6,71	8,57	
6	5970	5970	600	1096	2,24	150	2,77	0,70	7,31	9,41	
8*	2030	2030	300	823	2,24	150	1,87	0,70	5,51	7,38	
8	2500	1250	2600	468	2,24	150	2,32	0,70	6,71	8,57	
8	5320	5320	400	468	2,24	150	2,77	0,70	7,31	9,41	
10	2030	2030	300	823	2,24	150	1,87	0,70	5,51	7,38	
10	4950	4950	200	823	2,24	150	2,77	0,70	7,31	9,41	
15*	3000	1500	360	339	2,24	200	2,57	0,75	7,31	9,41	
15	6130	6130	600	1121	2,80	250	2,82	0,80	11,74	15,92	
20	3680	3680	600	1121	2,80	250	2,32	0,80	10,18	15,24	
20	6130	6130	600	1121	2,80	250	2,82	0,80	11,74	15,92	
20*	2500	1250	4573	1121	2,80	250	2,62	0,80	11,74	15,92	
30*	5800	2900	720	542	2,80	250	2,62	0,80	11,74	15,92	
30*	6300	3150	360	542	2,80	250	2,62	0,80	11,74	15,92	
40**	-	-	510	1052	2,80	300	2,72	0,80	11,94	16,32	
50**	-	-	510	1052	2,80	300	2,72	0,80	11,94	16,32	
60**	-	-	510	1052	2,80	300	2,72	0,80	11,94	16,32	



Additional nominal sizes on request.  
\* Separator with sludge trap = 2 x sludge collection room; DIBt Z-54.8-123  
\*\* Separator without sludge collection room; DIBt Z-54.8-361  
\*\*\*Please observe the frost-free depth of the location!  
The technical data of our current object dimension sketches are decisive. Subject to technical changes. Stand 07/04.