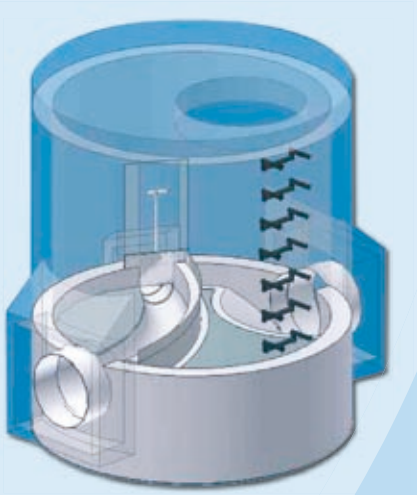
PRE-BUILT OVERFLOW CHAMBERS

AS–BALOK and AS–SOC

Overflow chambers (hereinafter as OC) are objects in the sewer canal network that serve the purpose of separating rain water within the system of unified sewerage. These objects are one of the most complex objects in the sewer canal network, both from the hydro-technical point of view as well as regarding their actual construction. Therefore, we concentrated on the development of pre-built model ranges of overflow chambers in order to ensure:

- **simplification** of project **draft**, selection from model ranges
- **minimization of construction works**, thanks to double-casing structure (so called **plastic-concrete system – permanent shuttering**), which is supplied including reinforcing steel support. These objects are installed on concrete sub-plates, and can be concrete-lined immediately after the connection of the sewer canal is completed. The installation including concrete-related works takes ca. 4 hours.
- precise manufacturing combined with operation comfort – **regulation options**
- **assistance for drafting** (personal, over phone, e-mail or through www.asio.cz in the „Solution draft" section, where you can find an interactive calculation)

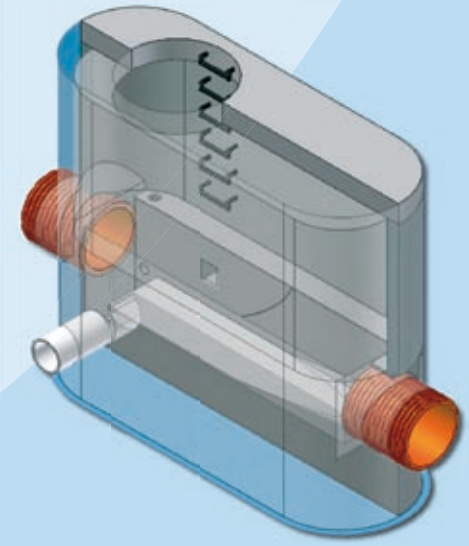


OVERFLOW CHAMBERS WITH SIDE CREST AS–BALOK

These chambers find their use especially in cases where **pipe retention in the incoming sewer canal can be used**. Type AS–BALOK functions on the principle of separating dilluted waste water over the crest. All types of OCs are equipped with an integrated slide valve at the outlet into the choking drain, and with a crest with adjustable height. These regulation elements are both manufactured from stainless steel 17 240. **The minimal limit flow-off Q_{hr} from the OC is limited by the regulation option** (DN 150 limits the flow rate to about 15–20 l/s).

ADVANTAGES

- reliable separation of rain water
- crest height regulation
- defined flow rate Q_{hr} regulation
- direction change possibility directly in the OC



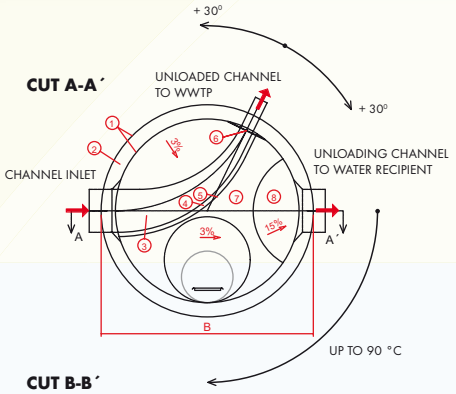
SLOT OVERFLOW CHAMBERS AS–SOC

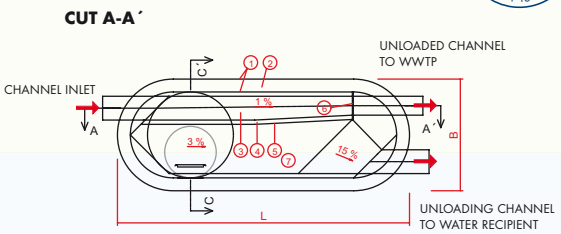
These chambers are especially **advisable for terrain configurations with low inclination**, where there are frequent problems resulting from water swelling in the incoming sewer chanel and from overflow sewer chanelling into the recipient. It can be generally stated that slot OCs ensure minimal overrun of the flow-off $Q_{č}$ in the direction of the waste water treatment plant in case that the total inflow Q_c to the OC does not exceed **10- to 12times the limit flow rate Q_{hr}**.
The limit flow-off Q_{hr} with AS–SOC type can be additionally regulated by means of a height-adjustable edge.

ADVANTAGES

- high operational reliability
- only minimal problems with sludge setting
- retainment of substantial amount of pollution from primary runoff
- does not cause any swelling in the incoming sewer chanel
- possibility of regulation of defined flow rate Q_{hr}

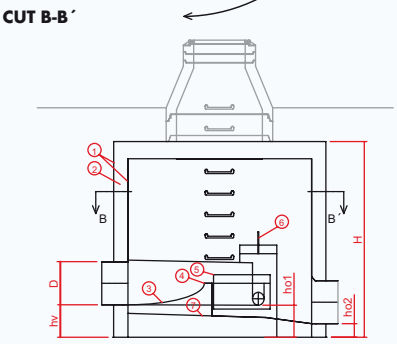
OVERFLOW CHAMBERS OF AS–BALOK SERIES

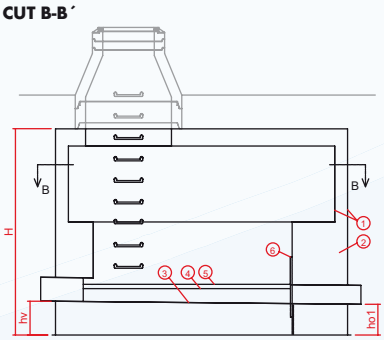


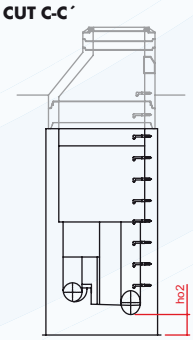


LEGEND

1. PLASTIC SHELL
2. CONCRETE FRAME
3. PLASTIC CHANNEL
4. SOLID PART OF OVERFLOW
5. REGULATED PART OF SIDE OVERFLOW
6. OUTLET REGULATION
7. CONCRETE FILLER WITH CEMENT LAYER







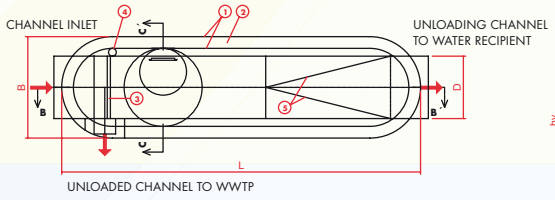
Note: can also be positioned in mirror configuration

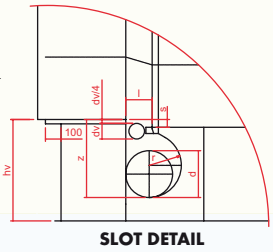
OVERFLOW CHAMBERS OF AS–BALOK SERIES									
Type	L	W	H*	hv	ho1	ho2	D	Weight	Volume of concrete
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[m^3]
AS–BALOK O/400	3400	1300	2400	450	425	200	300, 400	880	4,9
AS–BALOK O/600	4700	1800	2400	450	410	200	500, 600	1340	8,6
AS–BALOK O/800	5700	2470	2500	450	400	200	800	1880	14,0
AS–BALOK K/600	-	2470	2300	450	425	200	300, 400 500, 600	920	4,8
AS–BALOK K/800	-	3670	2300	450	415	200	800	1520	8,8

**object type height (may be modified in case of necessity)*

OVERFLOW CHAMBERS OF AS–SOC SERIES

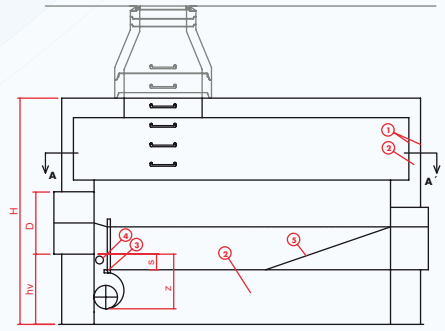
CUT A-A´



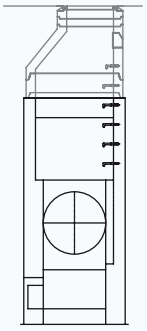


SLOT DETAIL

CUT B-B´



CUT C-C´



LEGEND

1. PLASTIC SHELL
2. CONCRETE FRAME
3. REGULATER SLOT BLADE
4. AIR INTAKE
5. TRANSMIT FROM RECTANGULAR TO ROUND PROFILE

Note: can also be positioned in mirror configuration

EASILY, QUICKLY, ECOLOGICALLY AND IN HIGH QUALITY!

OVERFLOW CHAMBERS OF AS–SOC SERIES										
Type	L	W	H*	hv	D	d*	z*	s**	Weight	Volume of concrete
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[m^3]
AS–SOC 400	2400	1300	2500	600	300, 400	300	500	75, 100	860	3,9
AS–SOC 600	3400	1300	2700	800	500, 600	400	700	125, 150	1150	6,0
AS–SOC 800	4550	1300	2700	900	800	400	800	200	1580	10,4
AS–SOC 1000	5400	1800	2900	1100	1000	500	1000	250	2120	16,3
AS–SOC 1200	6550	1800	2900	1300	1200	600	1200	300	2690	18,3

**maximum values for given size type, **recommended values for given size type*

OVERFLOW CHAMBER MARKING SCHEME

OVERFLOW CHAMBER TYPE MARKINGS

Overflow chambers are marked according to the following scheme: **AS–TYPE/ xxx/yy**

Type type OC – SOC ... slot overflow chamber
– BALOK O ... overflow chamber with a straight crest
– BALOK K ... overflow chamber with a curved crest

xxx size type – according to the dimension of incoming canal

yy inlet opening size in cm – 100 ... with installation of pre-built centring
– 60, 80 ... with direct fitting of cover

Example: AS–BALOK K/600 is an overflow chamber with a curved crest for dimensions of inlet piping of DN 300 – 600

Construction structure of both types of OC is designed as a double-casing shell including reinforcing steel support (permanent shuttering principle).

ADVANTAGES

- easy, uncomplicated fitting and conneting to the sewerage network
- concrete works at the installation site without additional shuttering and reinforcing works, incl. ceiling plate
- necessary time for fitting, connecting and concrete-works ca. 4 hours
- 100 % protection against concrete oxidation caused by subsoil water
- 100 % water-tightness against leakage of ballast subsoil water


ZÚS
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ASIO, LTD. Tuřanka 1, P.O.Box 56, 627 00 Brno, Czech Republic
Tel.: +420 548 428 111, fax: +420 548 428 100
E-mail: asio@asio.cz, www.asio.cz

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