



# DAF TECHNOLOGY FOR SLUDGE THICKENING

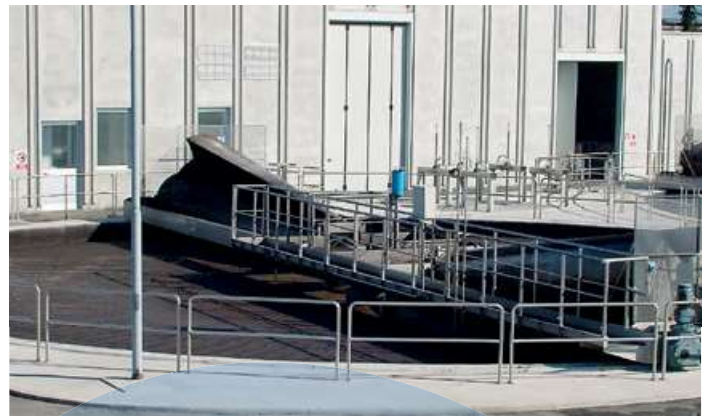


KWI Group is considered one of the pioneers of Dissolved Air Flotation (DAF) technology and is one of the oldest existing DAF unit manufacturers in the world.

Our DAF range includes **11 standard models**, as well as custom designs, to meet all customer requirements.

With nearly **70 years'** experience and the supply of **7000 DAF units** for **4700 references** globally, our Group is strategically placed to bid for large municipal or industrial projects.

KWI DAF unit is considered very efficient and is widely used in **biological sludge thickening** for municipal sewage treatment plants, or in industrial WWTPs.



**Sedicell® and Megacell®, are especially designed for sludge thickening.**

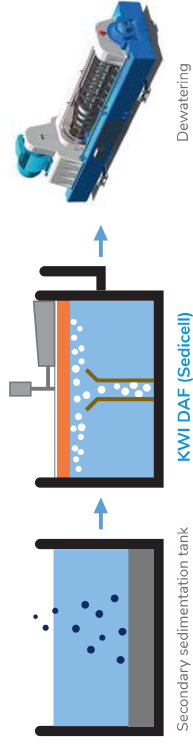
These innovative DAF units are a compact solution, robust and easy to operate.

Even start-up and shut-down phases do not modify their performance.

## KEY FEATURES AND BENEFITS

- Design allows tank construction in stainless steel or in concrete
- Horizontal or Vertical versions (Megacell® only)
- High floated sludge consistency (up to 6%) is easy to achieve and maintain
- **Prevents the release of phosphorus during the thickening phase**
- Insensitive to flow variations or the quality of incoming effluents
- Lower chemical consumption, none for Sedicell®
- Smaller foot print
- No sludge bulking problem

## ■ Typical sludge thickening process with Sedicell®



## ■ Performance & Operating Parameters

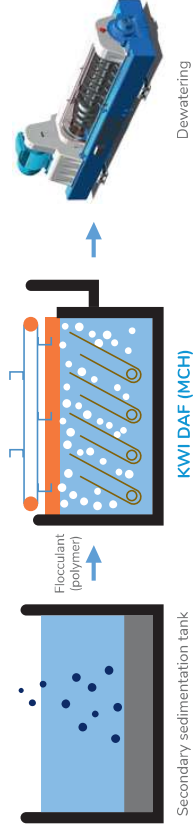
TSS inlet :	max. 8000 mg/l
TSS mass load :	8 kg/(m <sup>2</sup> .h)
Recirculation ratio :	50%-200%
Sludge concentration :	up to 5%
Air dissolving rate :	>80%
Construction material :	SS304L/SS316L/ Concrete

## ■ Sedicell® range

TYPE	MAXIMUM INLET FLOW* (m <sup>3</sup> /hour)	POWER (kW) scoop engine + carriage motor	DIMENSIONS øxH (M)
SDC 10	60	0.25+0.25	3.2x2.8
SDC 12	90	0.55+0.37	3.9x3.3
SDC 15	115	0.55+0.37	4.5x3.3
SDC 18	180	1.10+0.37	5.5x3.3
SDC 20	220	0.37+0.37	6.1x3.3
SDC 22	250	0.37+0.37	6.7x3.3
SDC 24	300	0.75+0.55	7.2x3.3
SDC 27	380	0.75+0.55	8.1x3.3
SDC 30	470	0.75+0.55	9.0x3.3
SDC 33	570	1.10+1.10	10.0x3.3
SDC 36	700	1.10+1.10	11.0x3.3
SDC 40	850	1.10+1.10	12.2x3.3
SDC 44	1000	1.50+1.50	13.4x3.3
SDC 49	1250	1.50+1.50	14.8x3.6
SDC 55	1500	1.50+1.50	16.7x3.6
SDC 65	2000	2.20+2.20	19.7x3.6
SDC 68	2200	2.20+2.20	20.4x3.6

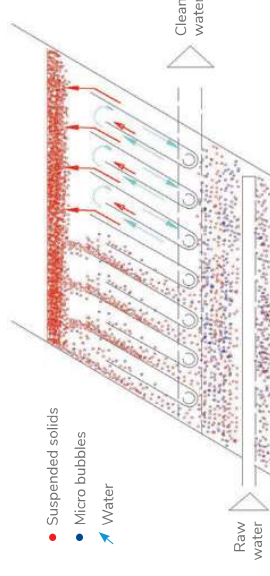
\*The maximum flow includes recycle flow and depends on SS loading and on the application.

## ■ Typical sludge thickening process with Megacell® Horizontal (MCH)



## ■ Performance & Operating Parameters

TSS inlet :	max. 8000 mg/l
TSS mass load :	20 kg/(m <sup>2</sup> .h)
Recirculation ratio :	50%-200%
Sludge concentration :	up to 4%
Air dissolving rate :	>80%
Construction material :	SS304L/SS316L/Concrete

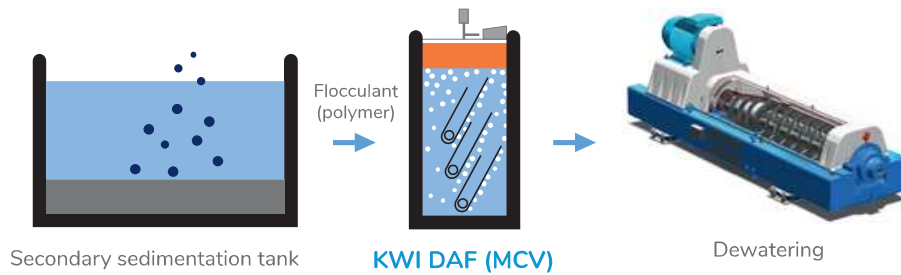


## ■ MCH range

TYPE	MAXIMUM INLET FLOW* (m <sup>3</sup> /hour)	POWER (kW)	DIMENSIONS LxWxH (m)	OPERATING WEIGHT (tons)
MCH 2	25	0.18	3.0x1.7x2.8	2.5
MCH 4	50	0.18	3.8x1.7x2.9	4.5
MCH 8	100	0.18	4.0x2.5x3.0	11.5
MCH 12	150	0.25	4.6x2.5x3.0	14.5
MCH 20	250	0.37	6.2x2.5x3.0	22
MCH 25	312	0.37	7.6x2.5x3.0	28
MCH 30	375	0.37	8.6x2.5x3.0	35
MCH 40	500	0.37	10.6x2.5x3.0	44
MCH 50	625	0.55	10.8x2.5x3.0	52
MCH 60 double	750	1.5+0.75	10.1x4.6x3.3	67
MCH 80 double	1000	1.5+0.75	12.1x4.6x3.8	116

\*The maximum flow includes recycle flow and depends on SS loading and on the application.

## ■ Typical sludge thickening process with Megacell® Vertical (MCV)



## ■ Performance & Operating Parameters

TSS inlet :	<b>max. 8000 mg/l</b>
TSS mass load :	<b>80 kg/(m<sup>2</sup>.h)</b>
Recirculation ratio :	<b>50%-200%</b>
Sludge concentration :	<b>up to 6%</b>
Air dissolving rate :	<b>&gt;80%</b>
Construction material :	<b>SS304L/SS316L/Concrete</b>



This vertical patented design is well suited to sludge thickening in industrial WWTPs, where the efficiency/surface ratio is strategic in investment choice

## ■ MCV range

TYPE	MAXIMUM INLET FLOW* (m <sup>3</sup> /hour)	POWER (kW)	DIMENSIONS Ø or LxWxH (m)	OPERATING WEIGHT (tons)
MCV 8	100	0.55	2.2xNAx5.2	22
MCV 12	150	0.55	2.2xNAx6.2	27
MCV 20	250	0.55	2.2xNAx8.2	38
MCV 30	375	0.55	3.0xNAx9.0	65
MCV 20.2	250	0.55	2.2x2.3x5.3	25
MCV 30.2	375	0.55	2.2x2.3x6.8	35
MCV 40.4	500	0.55	4.3x4.3x5.3	80
MCV 60.4	750	0.55	4.3x4.3x7.6	110
MCV 80.4	1000	0.55	4.3x4.3x8.8	150
MCV 100.4	1250	0.55	4.3x4.3x6.6	200

\*The maximum flow includes recycle flow and depends on SS loading and on the application.

KWI specialists have vast expertise and experience ranging from engineering to building and commissioning, and from investment to operation.

**Let's work together to make your project a success!**



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