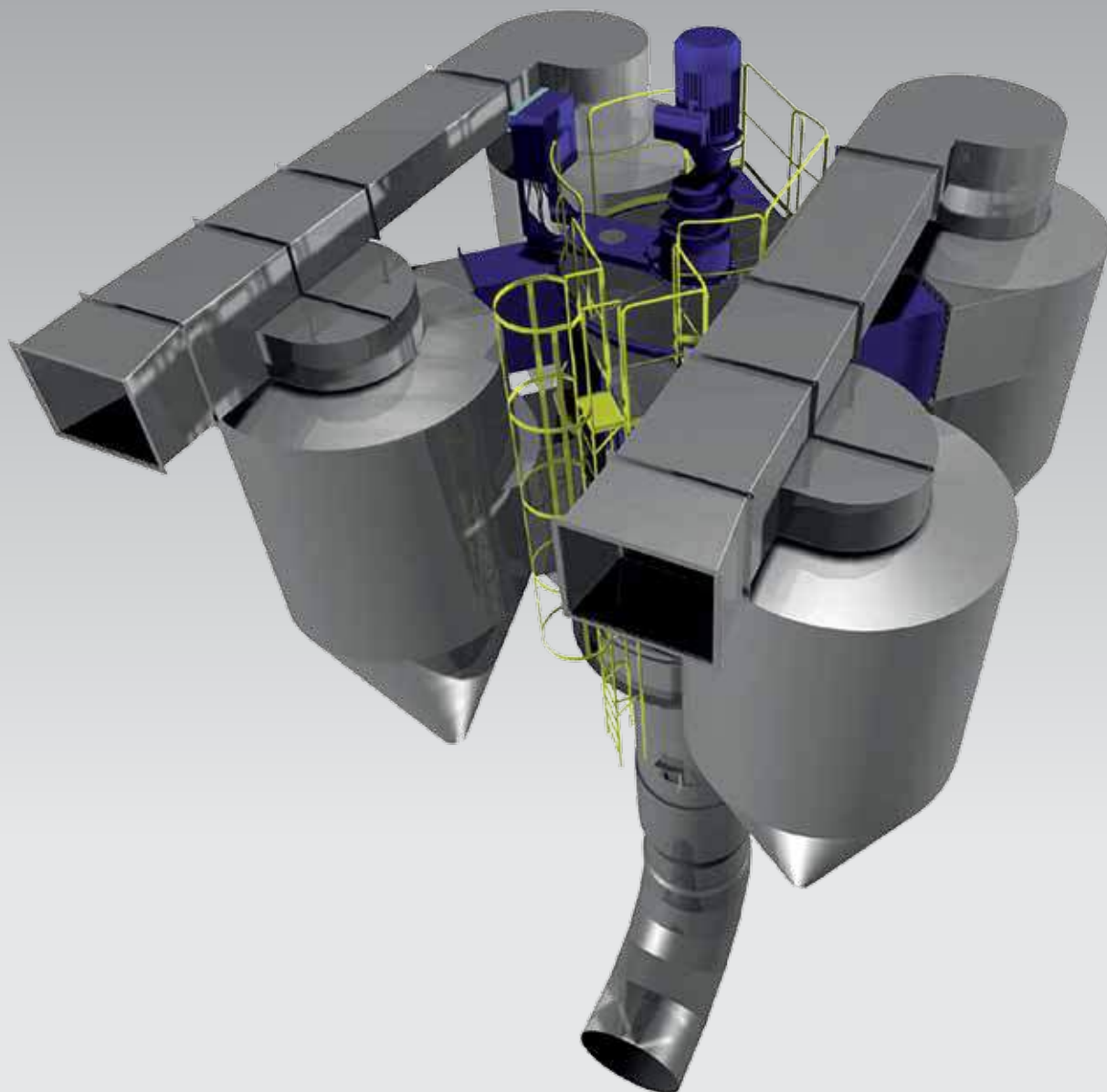


# SEPAX separator



# Smart, simple, space – saving design

## Key benefits

- High efficiency separation
- Highly effective nibs extraction minimises clogging of mill grates, thus enabling long-lasting full mill capacity
- Low operating costs

## Low initial costs

- Self-supporting structure
- Standard range drive parts
- One feed point in low position

## Flexible and versatile

- Adaptable to:
  - All cement grinding ball mill systems
  - Fully or semi air-swept raw grinding ball mills
  - Flash driers

## Low maintenance costs

- Optimum wear protection
- Automatic grease lubrication system
- Easy access for maintenance

The high efficiency separator improves the mill performance by avoiding over grinding of the material, and gives the required product fineness by efficiently separating the coarse particles from the fine particles. Decades of know-how in high-efficiency separation enables FLSmidth to supply the most suitable separator for almost any application.

### Low initial costs

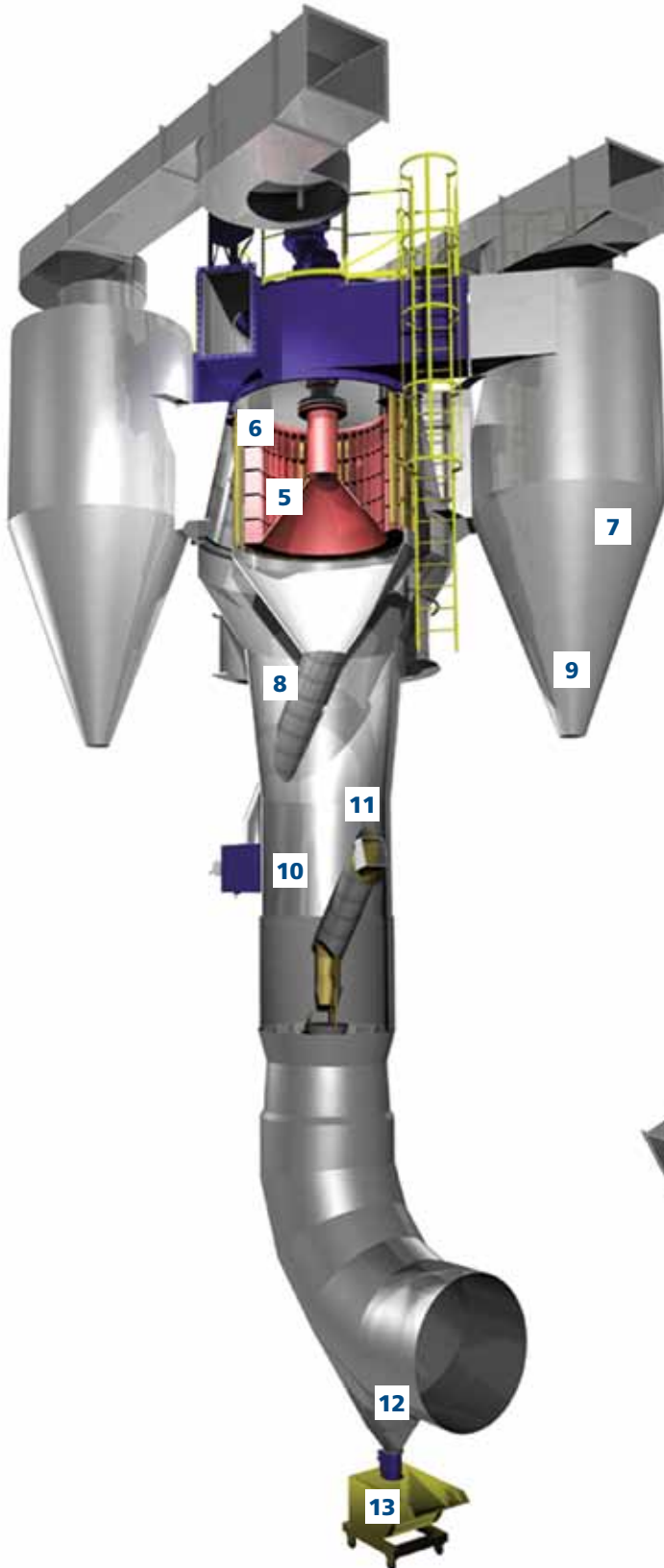
The simple and space-saving design of the SEPAX makes it an economical

investment. The separator is fitted within a self-supporting shell structure, and the entire separator unit with cyclones is supported by one ring-shaped support only. Reducer and motor are placed in line with the bearing housing, forming a compact and rigid drive-line unit. Finally, the SEPAX has one feed point placed at a low level, minimising the height of the separator feed elevator and simplifying the layout.

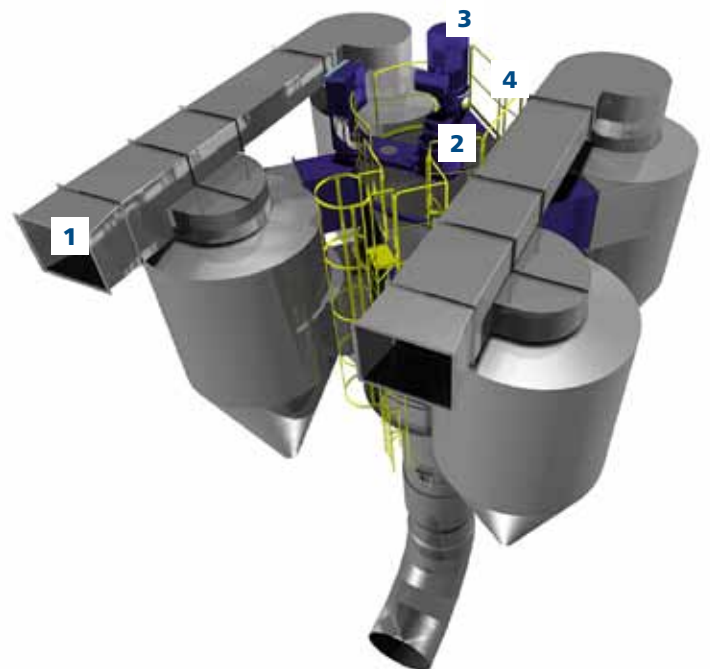




# SEPAX separator



- 1 Air outlet
- 2 Flexible coupling
- 3 Motor
- 4 Reducer
- 5 Rotor
- 6 Reject collecting guide vanes
- 7 Planetary separator supported cyclone
- 8 Ring-shaped support
- 9 Fine material outlet
- 10 Reject outlet cone valve
- 11 Feed point
- 12 Pneumatic unloading valve
- 13 Nibs disposal container



# Maximum efficiency

The SEPAX is very efficient in operation and cuts specific energy consumption to a minimum, while maintaining maximum output. A highly effective system for removal of worn grinding media from the mill discharge material means less clogging of diaphragms. This optimises mill performance and enables long-term, continuous operation.

## Flexible and versatile

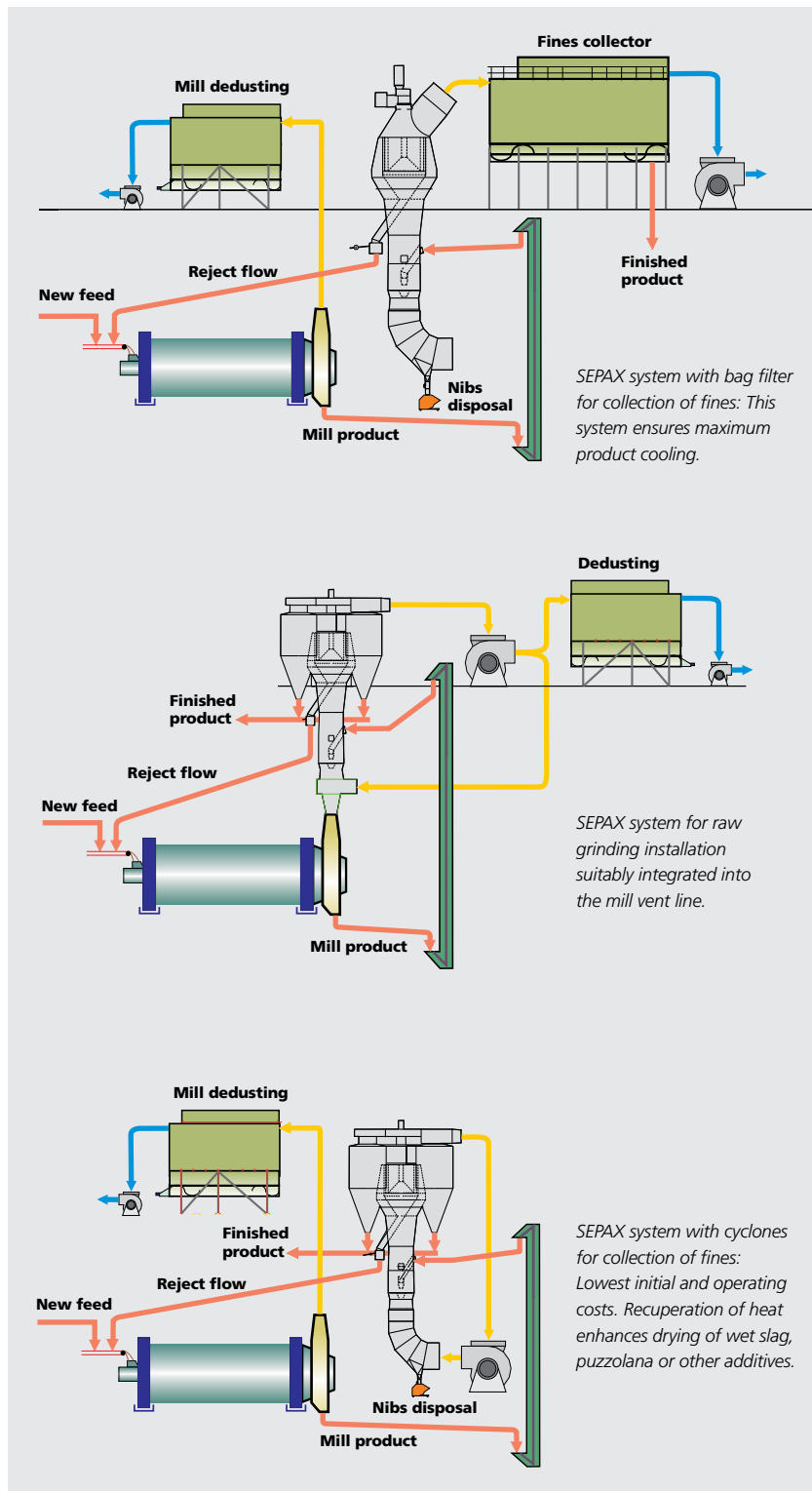
The SEPAX is designed to be equipped with drives ranging from low power drives for raw grinding to powerful drives for the finest grinding while still utilising the full design air flow. This ensures maximum efficiency regardless of the end product quality specified.

The SEPAX can be equipped with separator-supported cyclones or stand-alone cyclones for the collection of fines.

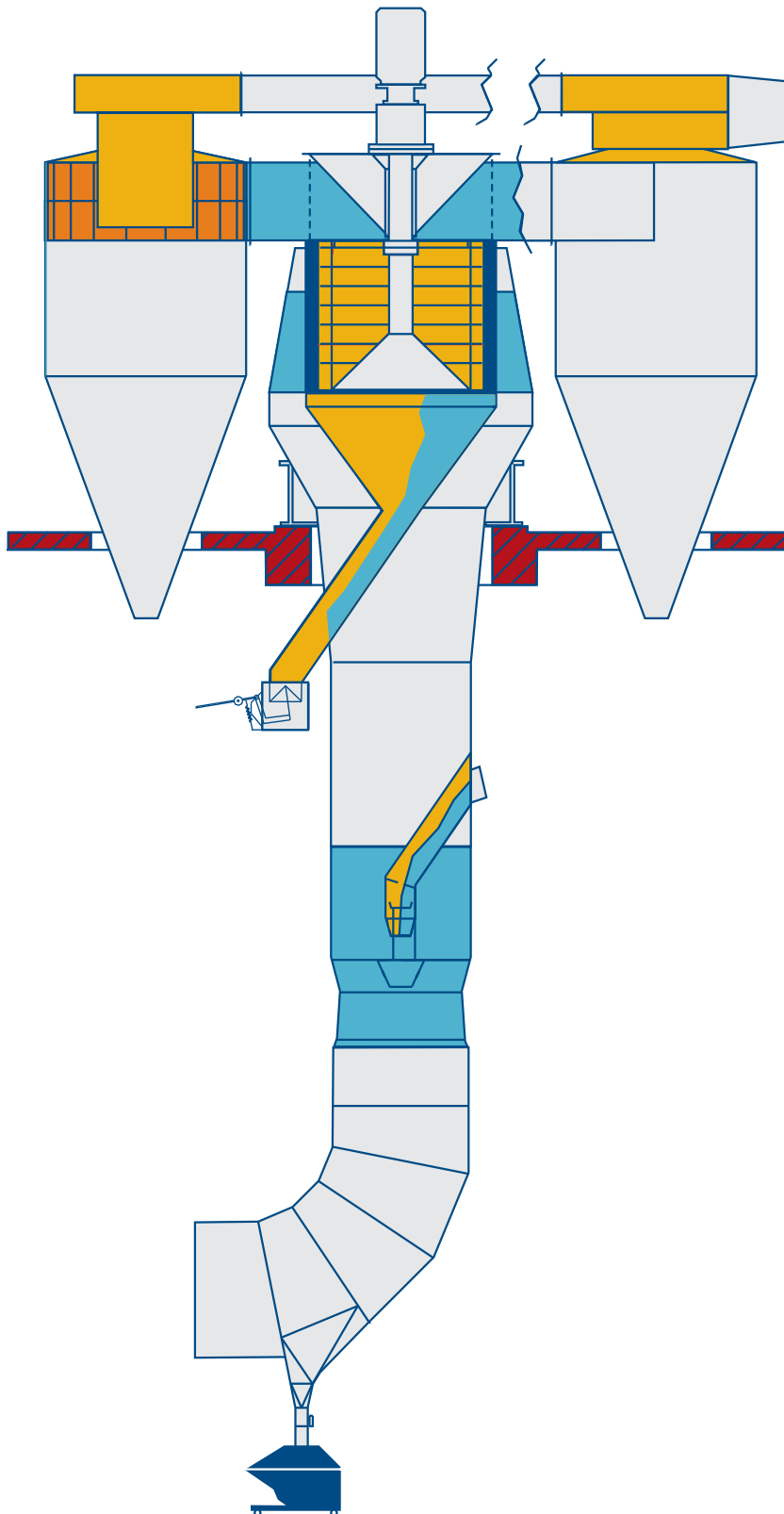
The feed concept is based on the material being suspended in the vertical air flow through the riser duct. This makes the SEPAX highly adaptable to various raw grinding applications. Consequently, the separator can be integrated into the mill venting system, in the case of fully or semi air-swept mills, or installed on top of a flash dryer that forms the riser duct leading up to the SEPAX.

## Low maintenance costs

The SEPAX is designed to be easily serviceable. Worn and broken grinding media are not recycled, which helps to save maintenance work on the mill grate plates. The removal of nibs from the separator feed reduces the wear on critical separator parts. Easily accessible and serviceable wear protection is fitted where appropriate, and the bearing unit can easily be replaced.



# Wear protection



## ■ **Densit Wearcast 2000**

The material is a 30 mm thick cement bound composition containing 55% hard (9 Mohs) grains of corundum (Al<sub>2</sub>O<sub>3</sub>). Densit Wearcast is easy to install and repair. It has been tested to outlast basalt by a factor of 1.3 when exposed to sandblasting at various inclinations.

## ■ **Hardox 400**

This is a world-known, abrasion-resistant, weldable steel plate, which is throughhardened to more than 360 HB and is recognised for its superior abrasion resistance properties.

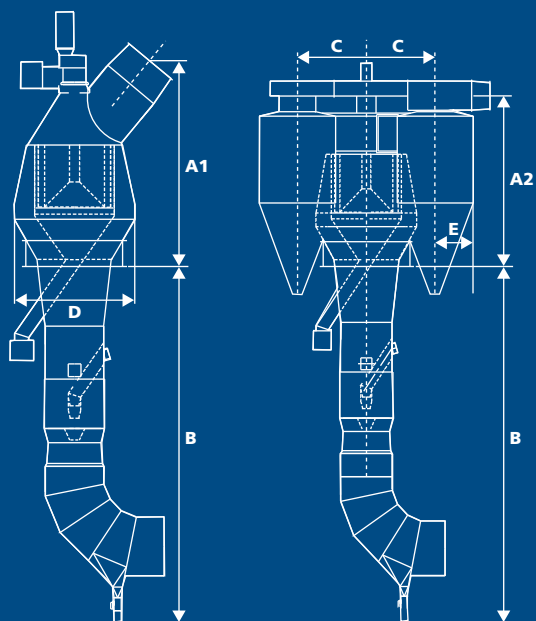
## ■ **Chromium compound wear plate**

This material is a mild steel plate with a thickness of 4 to 8 mm, onto which a 4 - 5 mm layer of hardfacing is welded. The hardfacing consists of primary chromium carbides in a eutectic matrix with eutectic chromium carbides. The hardness of the matrix reaches 600-750 HV, the grains 1400 HV. The temperature limit is 400 deg C.

## ■ **High carbon steel**

This is a low cost and highly versatile material which is used in places where moderate wear occurs.

## ■ **Mild steel**



## Dimensions and characteristics

Size	Air flow m <sup>3</sup> /s	A1 mm	A2 mm	B mm	C mm	D mm	E mm
190	7.3	3108	N.A.	5704	N.A.	1900	N.A.
212	10.0	3500	N.A.	6467	N.A.	2120	N.A.
236	13.5	3933	N.A.	7296	N.A.	2360	N.A.
250	15.7	4189	3754	7772	3040	2500	840
265	18.3	4460	4004	8285	3258	2650	900
280	21.1	4736	4262	8792	3492	2800	965
300	25.1	5102	4608	9468	3800	3000	1050
315	28.3	5376	4862	9975	4036	3150	1115
335	32.8	5746	5213	10647	4344	3350	1200
355	37.7	6115	5558	11319	4668	3550	1290
375	42.9	6485	5907	11989	4976	3750	1375
400	49.9	6947	6342	12822	5374	4000	1485
425	57.4	7412	6781	13656	5772	4250	1595
450	65.4	7876	7217	14488	6154	4500	1700
475	73.9	8341	7652	15321	6552	4750	1810
500	83.0	8807	8088	16152	6932	5000	1915
530	94.5	9365	8611	17148	7402	5300	2045
560	106.8	9923	9130	18145	7872	5600	2175

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[www.flsmidth.com](http://www.flsmidth.com)

### Project Centre Denmark

FLSmidth A/S  
Vigerslev Allé 77  
DK-2500 Valby  
Copenhagen  
Tel: +45 3618 1000  
Fax: +45 3630 1820  
E-mail: [info@flsmidth.com](mailto:info@flsmidth.com)

### Project Centre USA

FLSmidth Inc.  
2040 Avenue C  
Bethlehem, PA 18017-2188  
Tel: +1 610-264-6011  
Fax: +1 610-264-6170  
E-mail: [info-us@flsmidth.com](mailto:info-us@flsmidth.com)

### Project Centre India

FLSmidth Private Limited  
FLSmidth House  
34, Egatoor, Kelambakkam  
(Rajiv Gandhi Salai, Chennai)  
Tamil Nadu – 603 103  
Tel: +91-44-4748 1000  
Fax: +91-44-2747 0301  
E-mail: [indiainfo@flsmidth.com](mailto:indiainfo@flsmidth.com)

