ASTRA EX - VENERE EX

APPLICATIONS

Pumping of liquids and extraction of leachate in landfill, drainage of contaminated fluids and groundwater.
The ATEX pumps in conformity with 2014/34/UE Directive can be installed in potentially explosive atmospheres according to the marking explained hereafter.

FEATURES

- *Multistage centrifugal electric submersible pumps for 4" wells.*
- *External pump case, delivery port, suction port, shaft, impellers and diffusers in stainless steel.*
- *The check valve made of stainless steel is installed in the delivery head.*
- *Temperature of pumped liquid: max +40 °C.*
- ***Available the version for permanent immersion in hydrocarbons (our ID EX series).***
- ***Available in AISI 316 version.***

MOTOR

- *2 poles asynchronous motor, 50 Hz, 2850 rpm.*
- *Class F insulation.*
- *IP68 protection.*
- *Working voltage: single-phase 230 V, three-phase 400 V.*

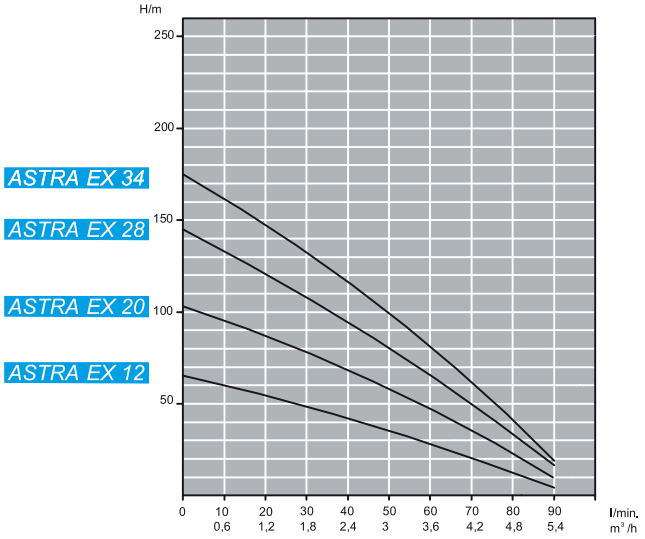
ACCESSORIES

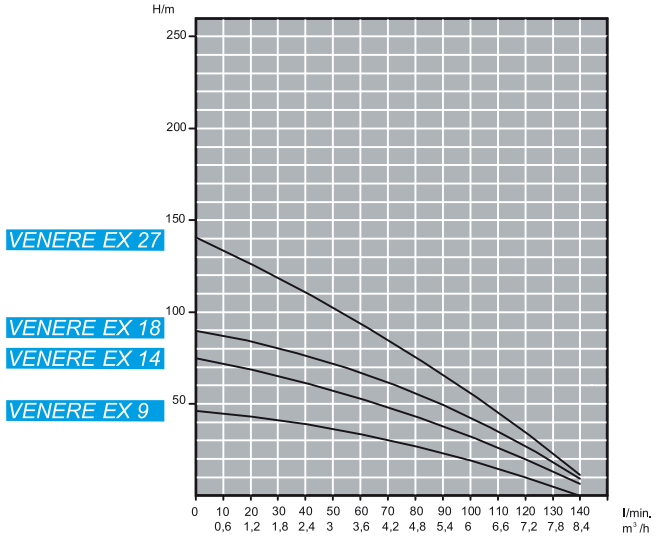
- *Control panel.*
- *Intrinsically safe module with ATEX supply circuit.*
- *ATEX level regulator with 5, 10 or 20 m of electric cable.*
- *ATEX electronic level transmitter.*
- *Maxifilter 142.*
- *Maxifilter 170, available also with slope riser for oblique wells.*
- *Electric cable to combine according to the chosen version and the liquid to pump.*

Technical specifications

Pump type	Motor		Cap. µF VL 450	Max current		Outlet	Delivery								
	HP	kW		230 V 1~	400 V 3~		l/min	0	20	40	60	80	90	100	120	140
				A	A	ø	m^3/h	0	1,2	2,4	3,6	4,8	5,4	6	7,2	8,4
ASTRA EX 12	1	0,75	30	5,3	1,8	1" 1/4	Manometric head (m)	66	53	41	29	15	6			
ASTRA EX 20	1,5	1,1	40	9	3,3			103	88	68	48	25	10			
ASTRA EX 28	2	1,5	50	11,4	4,7			144	123	95	67	35	14			
ASTRA EX 34	3	2,2	—	—	5,3			175	150	116	82	42	17			
VENERE EX 9	1	0,75	30	6,3	1,9			45	41	37	32	26	21	16	9	3
VENERE EX 14	1,5	1,1	40	9,3	3,5			74	67	60	52	44	39	34	18	6
VENERE EX 18	2	1,5	50	11,5	4,7			90	81	72	64	54	50	45	24	8
VENERE EX 27	3	2,2	—	—	5,5			140	124	108	94	74	65	56	29	10

Performance curves

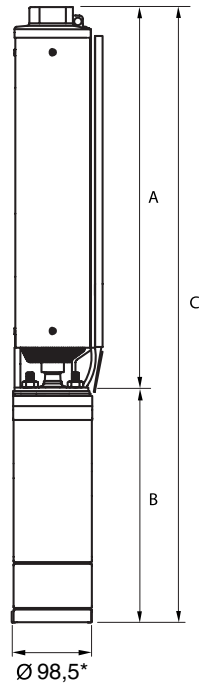




Dimensions and weights

Pump type	Dimensions					Weight				
	mm					kg				
	A	B		C		A	B		C	
		230 V 1~	400 V 3~	230 V 1~	400 V 3~		230 V 1~	400 V 3~	230 V 1~	400 V 3~
ASTRA EX 12	405	340	340	745	745	5,2	9	9	14,2	14,2
ASTRA EX 20	550	380	380	930	930	7,3	10,9	10,9	18,2	18,2
ASTRA EX 28	715	460	420	1175	1135	9,3	14,7	12,8	24	22,1
ASTRA EX 34	822	—	460	—	1282	10,6	—	14,7	—	25,3
VENERE EX 9	391	340	340	731	731	4,9	9	9	13,9	13,9
VENERE EX 14	495	380	380	875	875	6,3	10,9	10,9	17,2	17,2
VENERE EX 18	585	460	420	1045	1005	7,4	14,7	12,8	22,1	20,2
VENERE EX 27	806	—	460	—	1266	10,2	—	14,7	—	24,9

* *The max diameter referes to the solution with ME4DK flat cable. With different cables the diameter can change.*



A *Hydraulic part*

B *Motor*

C *Electric pump*

ATEX marking

II	*Group of apparatus - equipment for surface plants.*
2G	*Category - equipment compatible to be installed in potentially explosive atmospheres with gas, steams and vapours (area 1); this equipment is suitable for area 1 and area 2.*

4” ATEX electric pumps and 4” ID ATEX electric pumps protection

Ex	*Protection against explosions.*
eb	*Type of protection applied to electrical motor – increased safety “e”, level “b” – type of protection applied to electrical apparatus in which additional measures are applied so as to give increased safety against the possibility to excessive temperature and of the occurrence of ark and sparks in normal service or under specified abnormal conditions.*
h	*Type of protection applied to hydraulic part – constructional safety “k” – ignition protection where constructional measures are applied so as to protect against the possibility of ignition from hot surfaces, sparks and adiabatic compression generated by moving parts.*
mb	*Type of protection applied to connection facility to external circuits – encapsulation “m”, level “b” – type of protection whereby parts that are capable of igniting an explosive atmosphere by either sparking or heating are fully enclosed in a compound or other non-metallic enclosure with adhesion in such a way as to avoid ignition of a dust layer or explosive atmosphere under operating or installation conditions.*
ob	*Type of protection applied to electrical motor – liquid immersion “o”, level “b” – type of protection in which the electrical equipment or parts of the electrical equipment are immersed in a protective liquid in such a way that an explosive gas atmosphere which may be above the liquid or outside the enclosure cannot be ignited.*
IIC	*Subgroup of gas: equipment compatible to be installed with all combustible gas.*
T5/T6	*Class temperature – maximum temperature of the equipment 100 °C . When the mark is T6 the maximum temperature of the machine is 85 °C.*
Gb	*Protection level of equipment compatible to be installed in potentially explosive atmospheres with combustible gas - level b.*