

ASEPTIC CENTRIFUGAL SANITARY PUMPS CSD SERIES



HYGIENE



BIOTECHNOLOGY



INDUSTRIAL

Closed coupled hygienic and aseptic centrifugal pumps with open impellers. For optimal product security, the CSD aseptic series incorporates a steam protection barrier between the pumped product and the external environment. It is composed of two different flushing systems: one with very high temperature water for the mechanical seal and the second is steam on the product pump connections.

Wetted parts in CF-3M 1.4404 / AISI 316L stainless steel, investment cast and electro-chemically polished. Special internal finishes to 0,5 micron Ra are available on request.

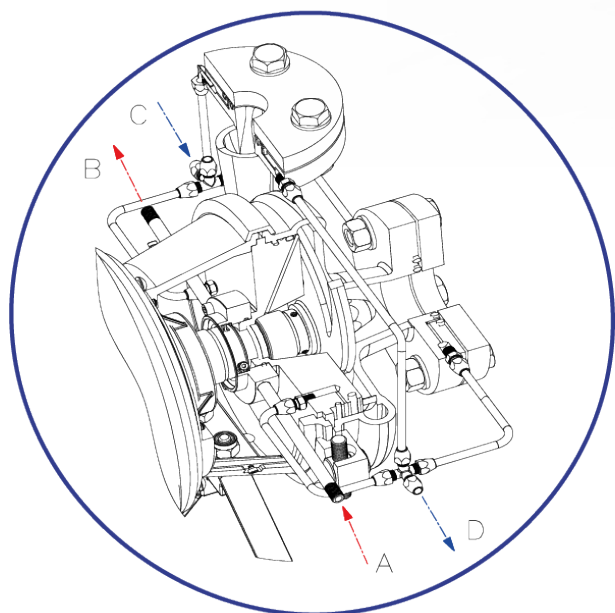
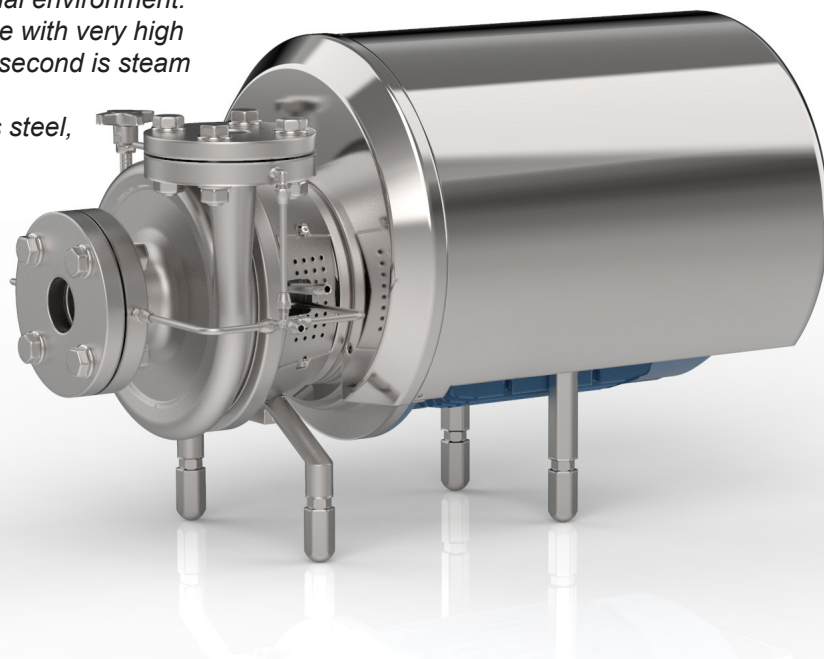
The clamp casing and seal design allows quick disassembly for inspection, cleaning and maintenance.

Separate IEC standard motor.

For aggressive products and environments, CSD pumps can on special request, be manufactured in the following materials:

- Superduplex
- Nickel steel

Note: upon availability with CSF



Flushing pipes connections: 1/8" GAS

- A - Mechanical seal flushing inlet
- B - Mechanical seal flushing outlet
- C - Flushing inlet of the casing / cover barrier and inlet - outlet port flanges
- D - Flushing outlet of the casing / cover barrier and inlet - outlet port flanges

Steam protective barrier

The steam piping must be connected to the "C" inlet fitting. The steam creates a sterile protection barrier for the pumped product by circulating inside the circuit positioned between the casing / cover and the inlet and outlet flanges.

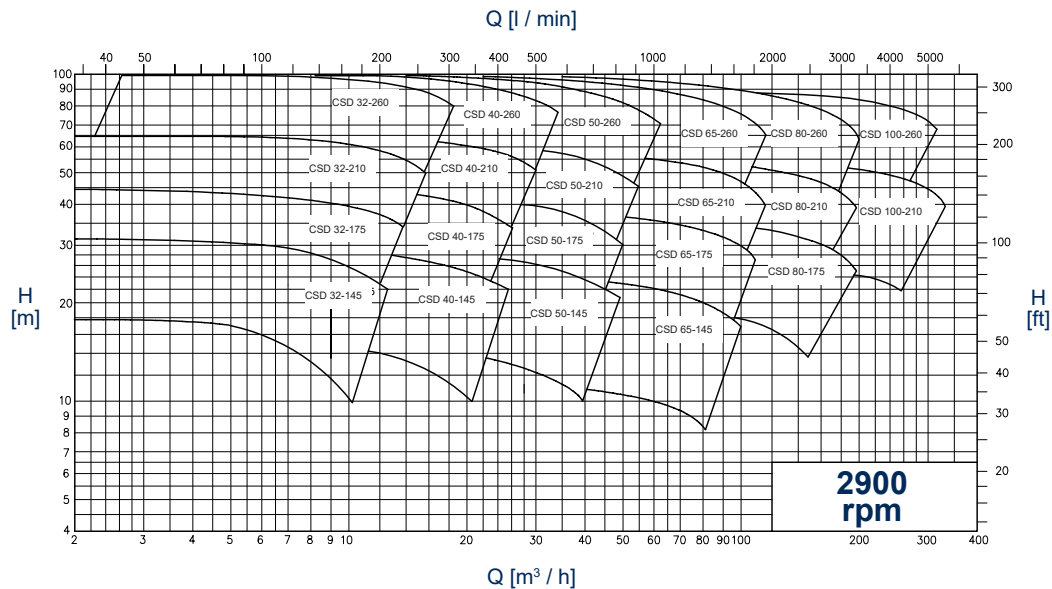
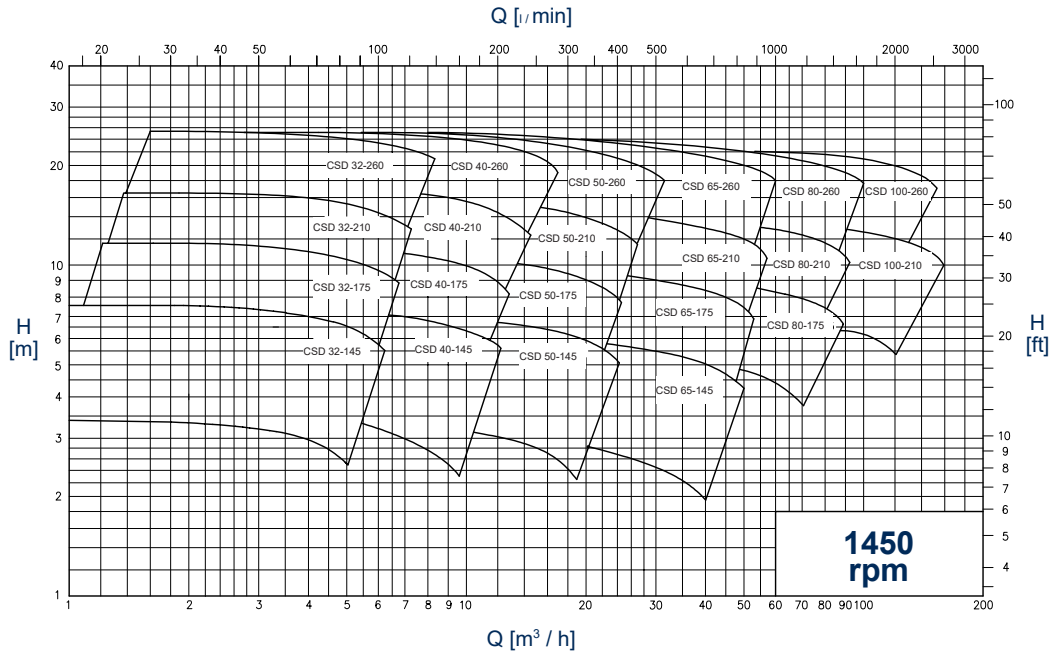
The steam collecting piping will be connected to the "D" steam outlet fitting.

The piping conveying the overheated water for cooling of radial seal must be connected at the inlet to the "A" pipe and at the outlet to the "B" pipe

Note: For the good running of the pump it is important that the flushing liquid circulate inside the mechanical seal box before the pump start-up and it must be suspended after the pump stop only. Make closed-loop connection of the D steam outlet fitting to avoid contact with the atmosphere.

GENERAL DIAGRAMS

(Performance applies to H₂O at 20 °C, 1013 mbar, Data not binding)



TECHNICAL DATA

Flow rates up to 300 m³/h
Heads up to 90 m
Maximum operating pressure 10 bar up to 100°C
Temperature range -20°÷ +100°
High performance, with low NPSH values.

Connections:

UNI EN1092-1 PN16 flanges.

Mechanical seals:

Protected, balanced and bi-directional mechanical seals with seats to EN12756, ISO3069 standards.
Single internal mechanical seal with external protective barrier "V".

The "V execution" seal system is composed of an internal, protected, balanced and bi-directional mechanical seal with seats according to EN 12756 - ISO 3069 standards in direct contact with the product and of an external radial seal for the high temperature flushing liquid.

Use sterile condensate with flow rate 0.5 ÷ 1 l/min and pressure ≤ 1 Bar.

Technical Data for Sterilisation:

Maximum steam pressure: 3 Bar

Maximum steam temperature : 130°C

Elastomers (FDA Regulation (EC) No. 1935/2004):

Nitrile (NBR)

Ethylene propylene (EPDM)

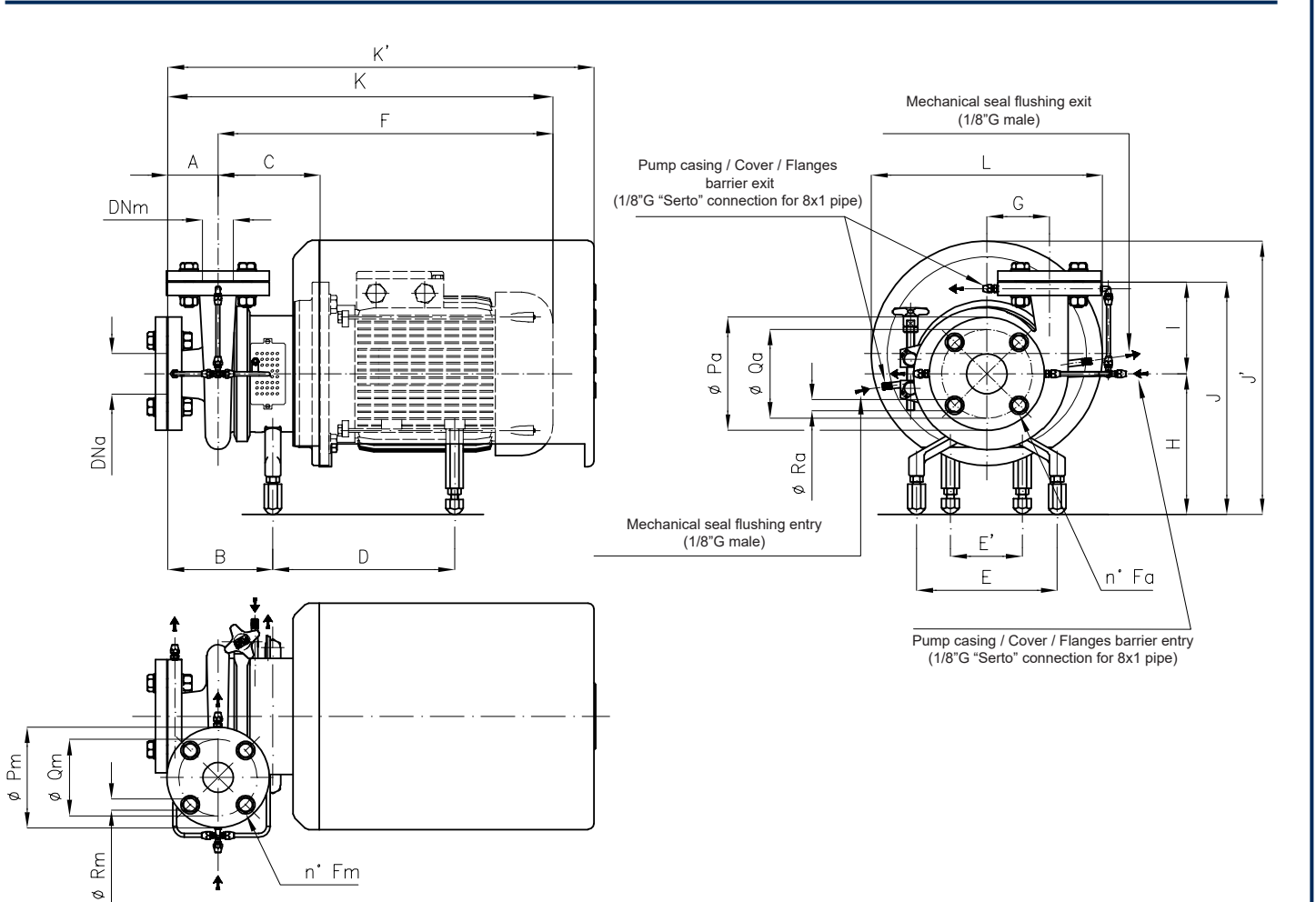
Special fluorocarbon seal

Fluorocarbon seal (FPM - FKM)

FEP

FFPM - FFKM

Silicone



Dimensions not binding - DN = UNI EN 1092-1 PN 16 flanges, with standard IEC/EN motors

Pump type	IEC motor dimensions:	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	I	J	J'	L	Ø Pa	Ø Qa	Ø Ra	Ø fa	Ø Rm	Ø Qm	Ø Rm	Ø fm	
CSD 32-145	80	40	32	80	167	138	231	225	-	372	85	208	452	566	135	343	372	298	150	110	18	4	140	100	18	4	
	90					419	499			360		430	330														
	100					475	555			360		430	330														
	112					468	548			360		430	330														
CSD 32-175	80	40	32	80	167	139	231	225	-	373	95	213	453	567	135	348	377	298	150	110	18	4	140	100	18	4	
	90					420	500			365		435	330														
	100					476	556			365		435	330														
	112					469	549			365		435	330														
CSD 32-210	80	40	32	88	166	139	231	225	-	373	110	221	461	575	155	376	385	298	150	110	18	4	140	100	18	4	
	90					420	508			376		385	298														
	100					476	564			644		376	385	298													
	112					469	546			644		376	385	298													
	132 M-S					161	283			180		546	238	634		688	393	460									370
	132 MB					161	281			185		584	238	672		743	393	460									370
	160					206	408			230		700	238	788		943	393	501									430
CSD 32-260	90	50	32	90	184	163	231	225	-	444	140	221	534	601	177	398	385	298	165	125	18	4	140	100	18	4	
	100					500	590			649		398	385	298													
	112					493	583			649		398	385	298													
	132 M-S					185	292			180		570	238	660		714	415	460									370
	132 MB					185	290			185		608	238	698		769	415	460									370
	160					225	412			230		719	247	809		968	424	510									430
	80					50	40			80		168	139	231		225	-	373									90
90	420	501	341	372	298																						
100	476	556	358	430	330																						
112	469	549	358	430	330																						
CSD 40-175	80	50	40	80	169	141	231	225	-	375	95	213	455	569	140	353	377	298	165	125	18	4	150	110	18	4	
	90					422	502			353		377	298														
	100					478	558			638		353	377	298													
	112					471	551			638		353	377	298													
	132 M-S					164	275			180		549	230	629		683	370	452									370
	132 MB					164	273			185		587	230	667		738	370	452									370
	160					208	400			230		702	238	782		937	378	493									430
CSD 40-210	80	50	40	80	161	141	231	225	-	375	115	221	455	569	165	386	385	298	165	125	18	4	150	110	18	4	
	90					422	502			386		385	298														
	100					478	558			638		386	385	298													
	112					471	551			638		386	385	298													
	132 M-S					164	283			180		549	238	629		683	403	460									370
	132 MB					164	281			185		587	238	667		738	403	460									370
	160					208	408			230		702	238	782		937	403	501									430

