



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.

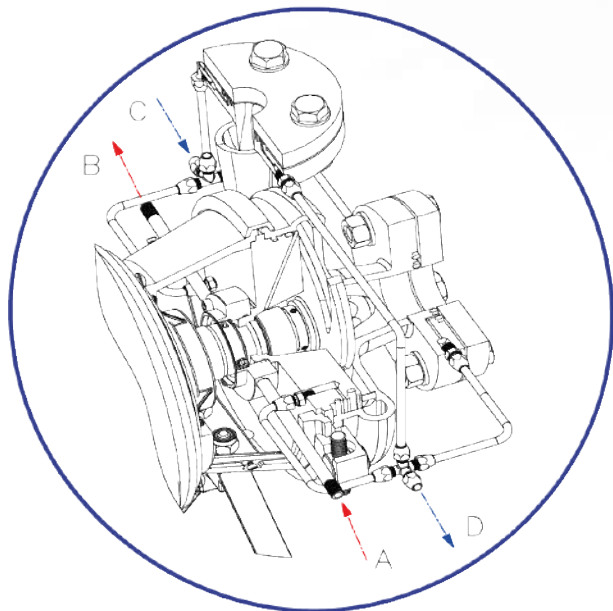
The clamp casing and seal design allows quick disassembly for inspection, cleaning and maintenance.

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.

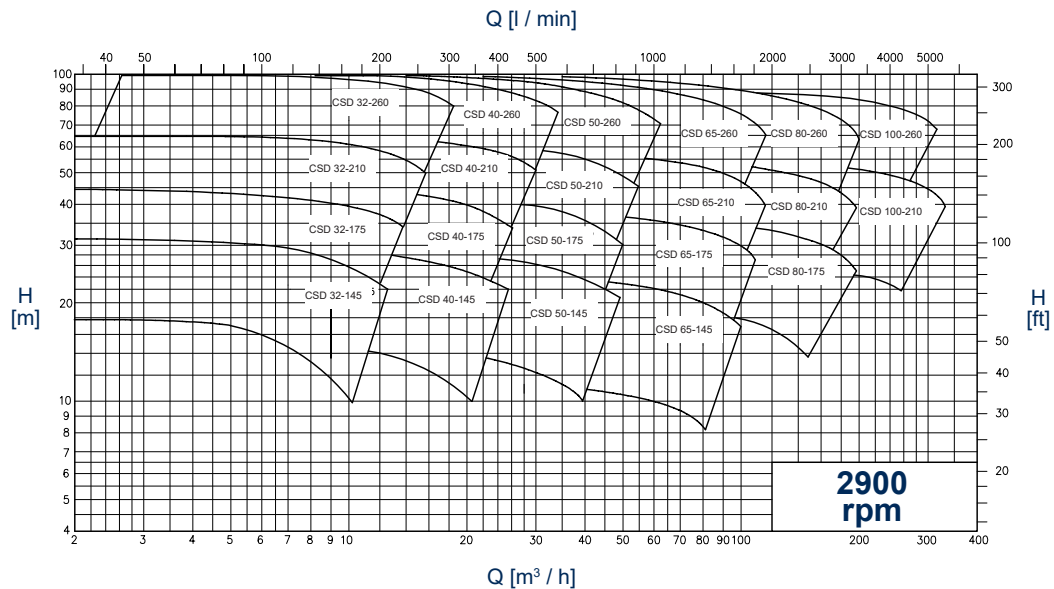
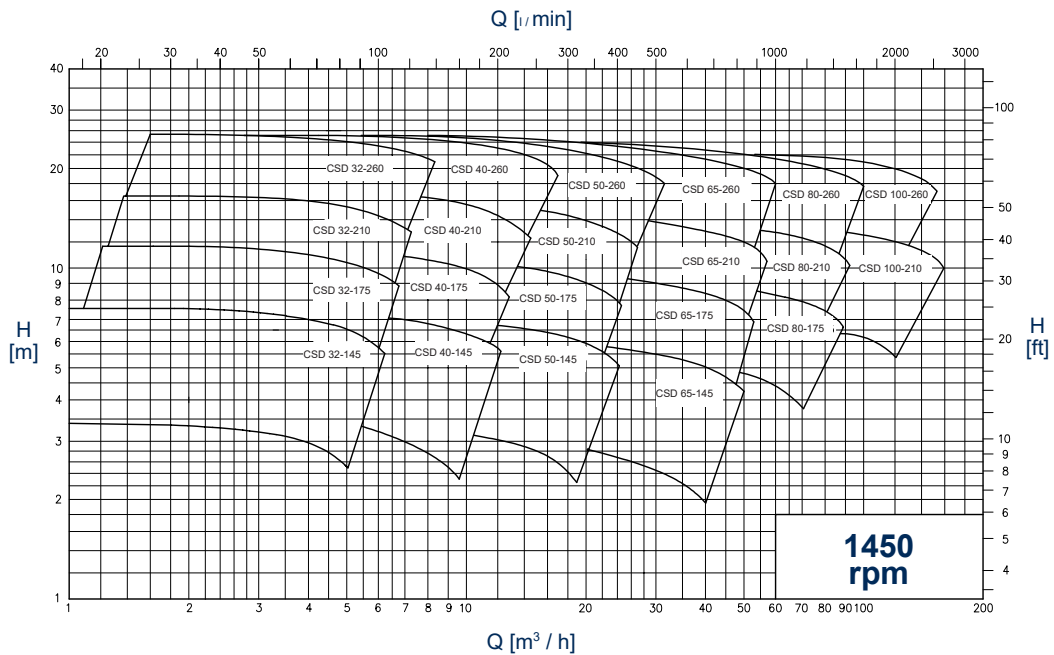
The steam collecting piping will be connected to the "D" steam outlet fitting.

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.

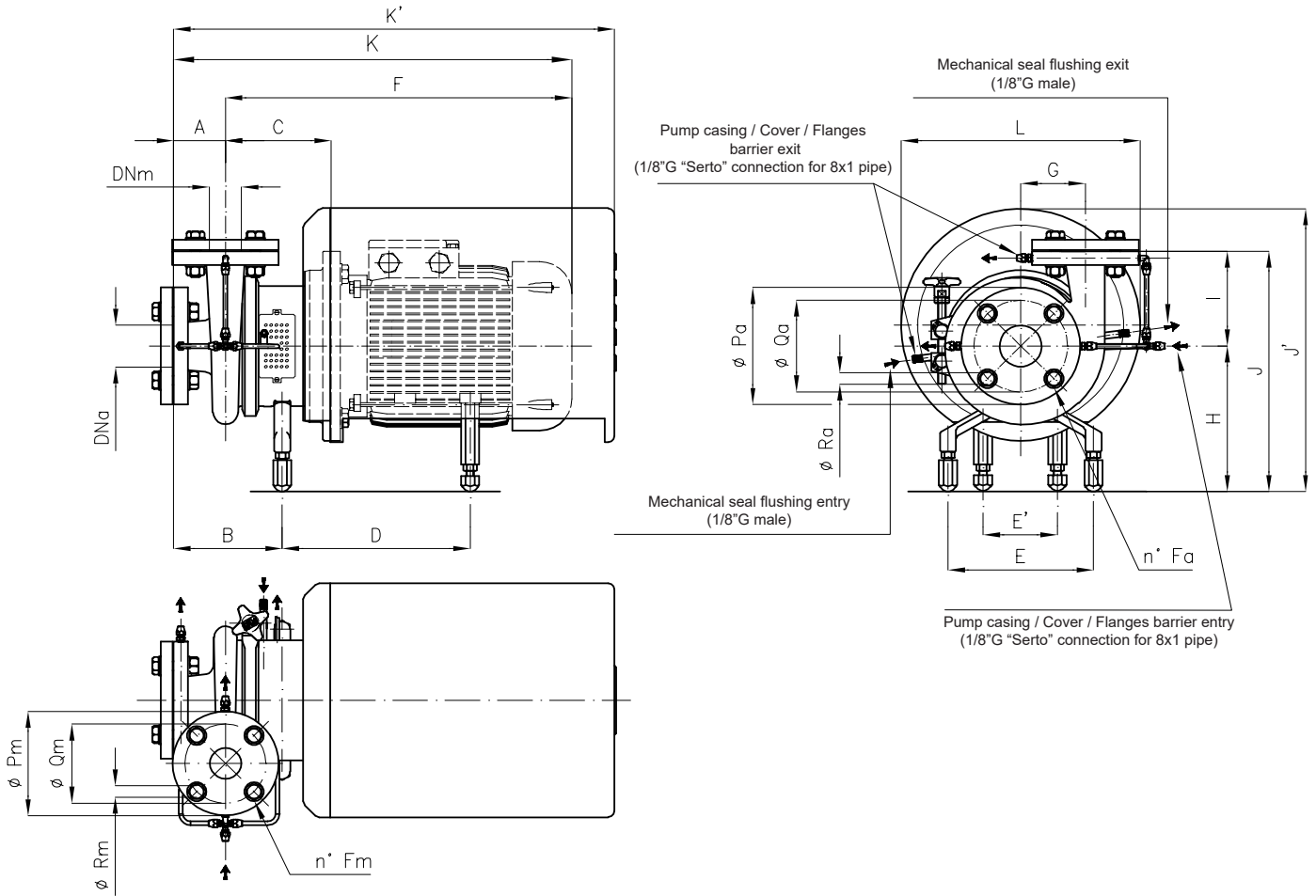
Technical Data for Sterilisation:

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

OVERALL DIMENSIONS



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
	419									499			635													
	475									555			635													
	468									548			635													
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
	420									500			636													
	476									556			636													
	469									549			636													
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
	420									508			644													
	476									564			644													
	469									564			644													
	283									634			688													
	281									672			743													
CSD 32-260	160	50	32	90	184	164	301	225	-	493	140	238	583	649	177	398	385	298	165	125	18	4	140	100	18	4
	500									590			649													
	493									583			649													
	180									660			714													
	292									698			769													
	290									698			769													
CSD 40-145	80	50	40	80	168	139	231	225	-	373	90	208	453	567	133	341	372	298	165	125	18	4	150	110	18	4
	420									501			636													
	476									556			636													
	469									549			636													
	283									629			683													
CSD 40-175	80	50	40	80	169	141	231	225	-	375	95	213	455	638	140	353	377	298	165	125	18	4	150	110	18	4
	422									502			638													
	478									558			638													
	471									551			638													
	275									629			683													
	273									667			738													
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
	422									502			638													
	478									558			638													
	471									551			638													
	283									629			683													
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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 40-260	90	50	40	100	194	163	231	225	-	444	145	238	544	611	167	388	385	298	165	125	18	4	150	110	18	4			
	100					164	301			500			600	681		443	330												
	112					185	292			493			593	724		460	370												
	132 M-S					185	290			185			608	708		779	414	510									430		
	132 MB					225	412			230			719	819		978	579	420											
160																													
180																													
CSD 50-145	80	65	50	86	170	141	231	225	-	374	95	225	208	577	145	353	372	298	185	145	18	4	165	125	18	4			
	90					142	301			422			510	646		370	430	330											
	100					142	301			478			559	691		370	447	370											
	112					164	274			471			637	691		447	370												
	132									180			549																
80	65	50	80	169	141	231	225	-	374	100	230	213	569	150	363	377	298	185	145	18	4	165	125	18	4				
90					142	301			422			558	638		380	435	330												
100					164	275			478			551	638		380	452	370												
112					164	273			471			629	683		380	493	430												
132 M-S					208	400			180			549	667		738	493	430												
132 MB			185	587																									
160																													
180																													
CSD 50-210	90	65	50	80	161	141	231	225	-	422	120	238	221	569	170	391	385	298	185	145	18	4	165	125	18	4			
	100					142	301			478			551	638		408	460	370											
	112					164	283			471			551	638		408	501	430											
	132 M-S					164	281			180			549	667		738	501	430											
	132 MB					208	408			185			587	782		937	418	580									420		
160																													
180																													
CSD 50-260	90	65	50	90	186	141	231	225	-	501	145	247	238	671	175	413	443	330	185	145	18	4	165	125	18	4			
	100					165	301			494			584	671		413	443	330											
	112					228	412			230			722	812		971	422	510									430		
	132 M-S					228	532			279			788	878		1087	422	579									420		
	132 MB																												
160																													
180																													
CSD 65-145	80	80	65	79	173	145	231	225	-	379	112	225	208	572	145	353	372	298	200	160	18	8	185	145	18	4			
	90					146	301			482			563	642		370	430	330											
	100					168	274			475			555	686		370	447	370											
	112					168	272			180			553	670		741	488	430											
	132 M-S					212	399			230			706	785		940	488	430											
132 MB																													
160																													
CSD 65-175	90	80	65	80	172	144	231	225	-	425	120	230	213	572	150	363	377	298	200	160	18	8	185	145	18	4			
	100					145	301			481			561	641		380	435	330											
	112					167	275			474			554	641		380	452	370											
	132 M-S					167	273			180			552	632		686	452	370											
	132 MB					211	400			185			590	670		741	493	430											
160																													
180																													
CSD 65-210	90	80	65	90	189	168	231	225	-	449	135	247	221	605	175	396	385	298	200	160	18	8	185	145	18	4			
	100					169	301			505			595	675		413	443	330											
	112					231	412			498			588	675		422	510	430											
	132 M-S					231	532			230			725	815		974	510	430											
	132 MB																												
160																													
180																													
CSD 65-260	100	80	65	100	198	168	301	225	-	504	155	247	238	684	205	443	443	330	200	160	18	8	185	145	18	4			
	112					190	292			497			597	684		443	443	330											
	132 M-S					190	290			180			575	675		729	460	370											
	132 MB					230	412			185			613	713		785	452	510									430		
	160																												
180																													
CSD 80-175	100	100	80	100	205	174	301	225	-	510	139	241	230	690	164	394	435	330	220	180	18	8	200	160	18	8			
	112					195	290			503			610	690		394	452	370											
	132 M-S					236	411			230			730	830		989	405	504									430		
	160																												
	180																												
CSD 80-210	100	100	80	100	201	171	301	225	-	507	145	247	238	687	185	423	443	330	220	180	18	8	200	160	18	8			
	112					193	292			507			607	687		423	443	330											
	132 M-S					193	292			180			578	678		732	460	370											
	160					233	412			230			727	827		986	432	510									430		
	180																												
CSD 80-260	100	100	80	100	201	171	301	225	-	507	165	238	607	687	209	447	443	330	220	180	18	8	200	160	18	8			
	112																												
	132																												
CSD 100-210	132	125	100	111	219	200	292	225	-	585	161	247	238	750	214	452	460	370	250	210	18	8	220	180	18	8			
	180					240	532			279			800	911		1120	461	579									420		
CSD 100-260	132 MB	125	100	115	218	195	290	225	-	618	186	247	238	804	216	454	460	370	250	210	18	8	220	180	18	8			
	160					235	412			230			729	844		1003	463	510									430		
	180					235	532			795			910																



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