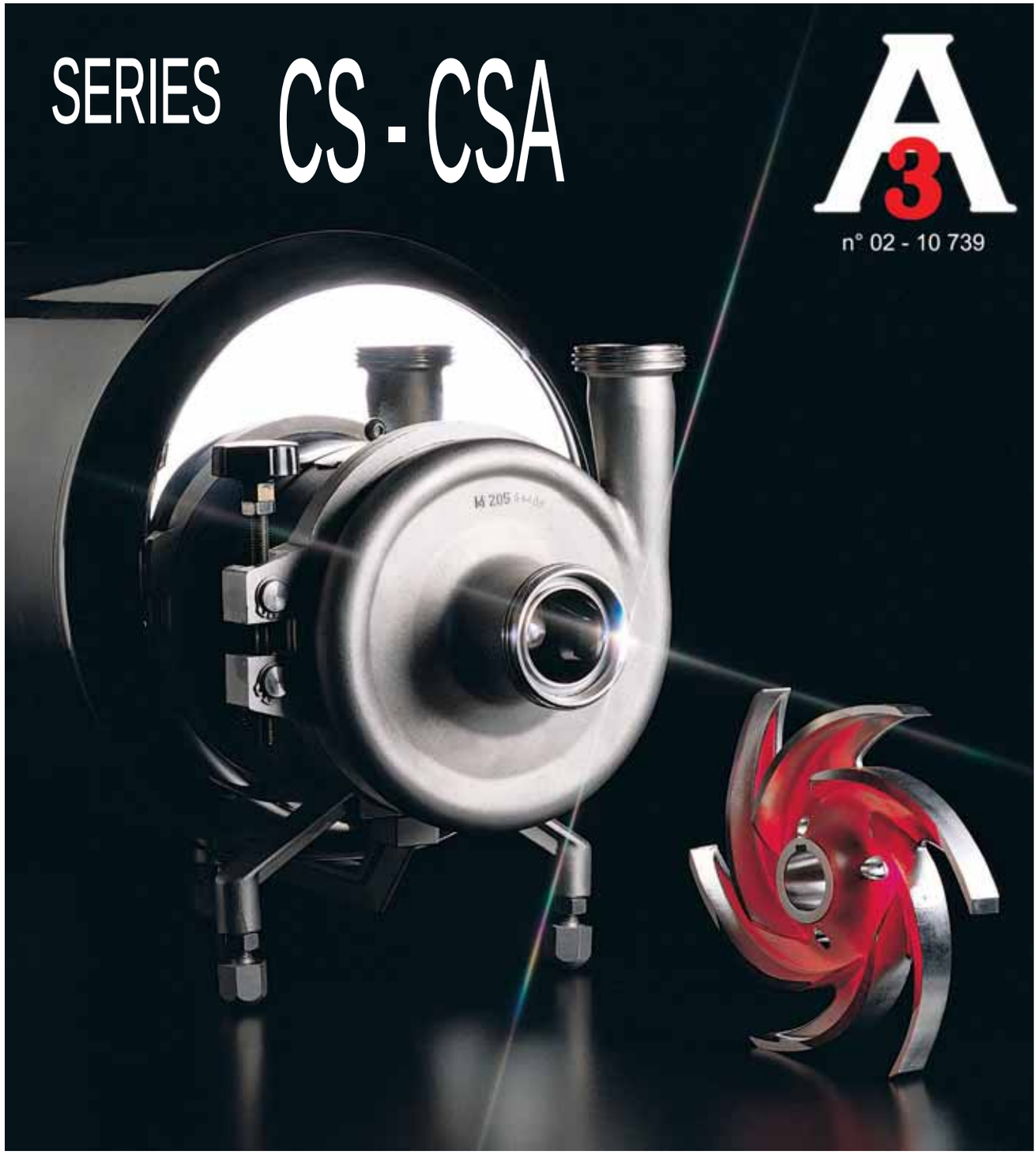
SANITARY CENTRIFUGAL PUMPS

CLOSED COUPLED WITH STANDARD MOTOR



CSF INOX SPA

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CENTRIFUGAL PUMPS
CS - CSX - CSK SERIES

Standard design

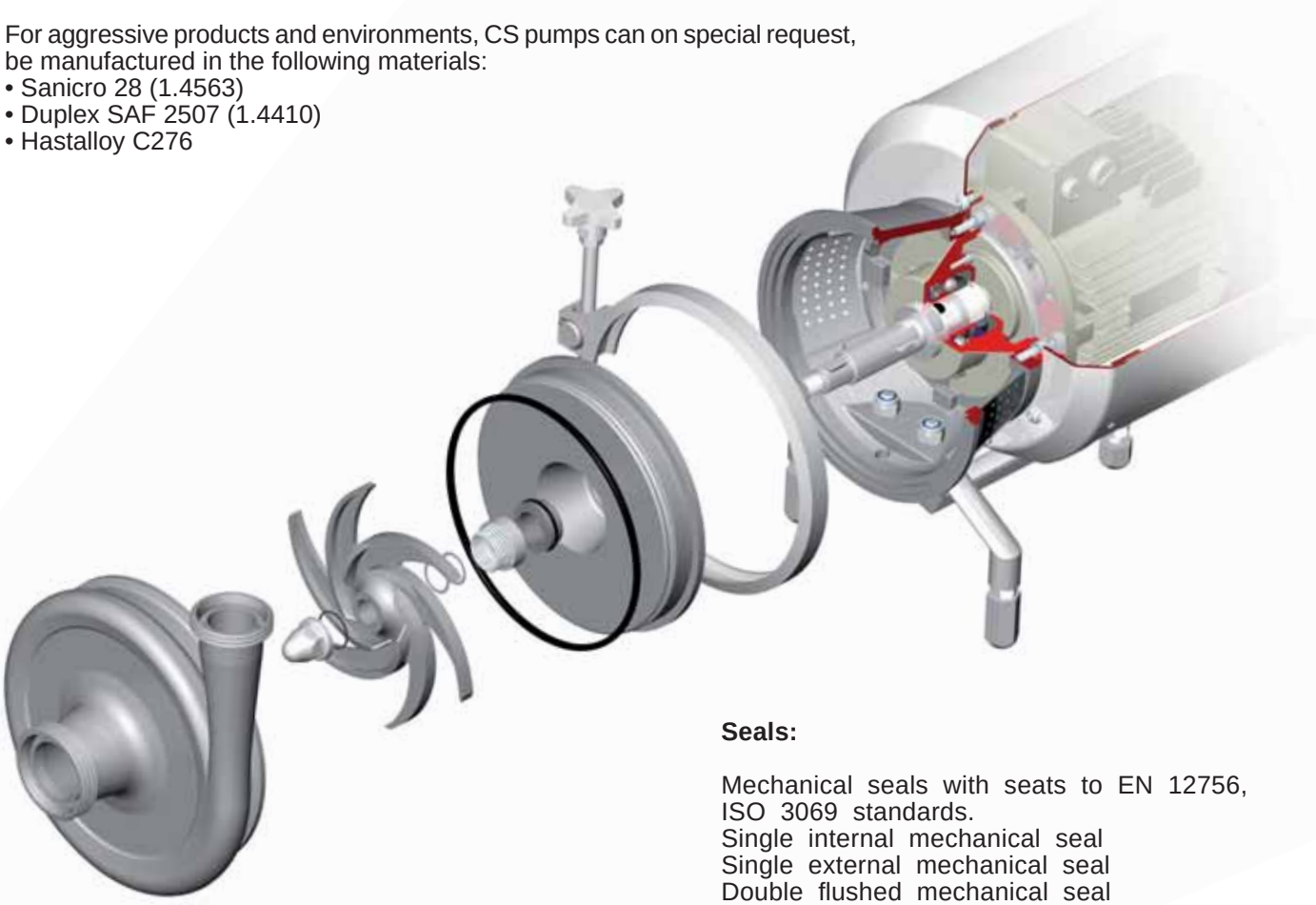
Closed coupled hygienic centrifugal pumps with open impellers. CS Series pumps meet the highest requirements of the food, pharmaceutical, chemical and water treatment industries.
The pumps are designed to a modular concept, resulting in a large number of models and a massive performance range. When combined with the extremely robust construction, these highly efficient pumps become ideal for any hygienic process system.

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 (not on sizes 125 to 150).

Separate IEC standard motor.
Flow rates up to 500 m^3/h, heads up to 100 m (10 bar); high performance, with low NPSH values.

The clamp casing and seal design allows quick disassembly for inspection, cleaning and maintenance. It also enables the delivery port to be rotated to any position for easy installation (not on sizes 125 to150).

For aggressive products and environments, CS pumps can on special request, be manufactured in the following materials:
- Sanicro 28 (1.4563)
- Duplex SAF 2507 (1.4410)
- Hastalloy C276



Seals:

Mechanical seals with seats to EN 12756, ISO 3069 standards.
Single internal mechanical seal
Single external mechanical seal
Double flushed mechanical seal

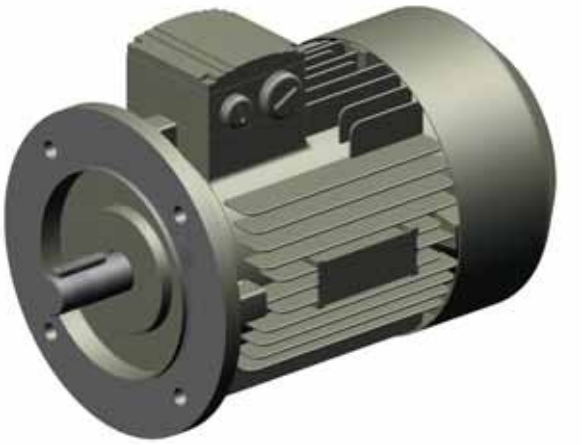
Elastomers (certified to FDA):

EPDM
Fluorocarbon (Viton)
Silicone
P.T.F.E. (Fep)

Connections:

DIN - SMS - IDF - BS / RJT - DS - CLAMP and EN 1092-1 PN 16 flanges suitable for all international standards.

INDEPENDENT SUPPORT
Sturdy and modular support to be integrated in the various solutions.



SEPARATE MOTOR
For a self-sufficient choice in compliance with the following standards:
- IEC 34 - 1
- VDE 0530T1
- NF C51 - 111
- BS 5000 PART. 99
- NEMA MG1 PART. 1

REAR CASING COVER
Achieved by investment casting, structured and machined according to the various mechanical seals and application requirements.

IMPELLER
Each pump model has its own impeller that is manufactured with perfect shapes, thickness and materials and balanced thanks to the investment casting procedure. This means that they are perfectly efficient and reliable.

CASING
Volute casing with variable circular cross section, minimum thickness 6 mm, with perfect development of the shapes ensured by the investment casting procedure.

APPLICATIONS

The CS series has been designed to be used mainly in foodstuff, pharmaceutical, chemical and water treatment industries. The high quality standard does however mean that these pumps can also be used in all sectors where liquids are to be pumped.
Thus modular construc-tional concepts have been achieved with solutions suitable for all sectors.
The choice of the type of open impeller with 6 blades but with minimum assembly clearances means that these pumps can be used with perfectly clean and clear liquids but also with denser liquids or those with suspended particles. Ideal performance and low NPSH values mean that they can be used even in plants with particularly tricky problems.

PRODUCTS AND PROCESSES

DAIRY PRODUCTS
Unpasturised milk, whey, cream, skimmed milk, concentrated milk, concentrated whey.

FOODSTUFFS
Animal and vegetable oils and fats, vinegar, sauces, flavourings, egg products.

NON ALCOHOLIC BEVERAGES
Syrups, concentrates, must, fruits juice.

ALCOHOLIC BEVERAGES
Liqueurs, wine, sparkling wine, beer.

PHARMACEUTICAL/COSMETICS
Superpure water, WFI, hydro-alcoholic solutions, infusion solutions, lotions, plant extracts, perfumes.

PAPER/PULP
Glues, starch solutions, resin solutions, kaolin solutions.

BIOTECHNOLOGY
Cellular suspensions, nutrients solutions, enzymes.

SUGARY PRODUCTS
Liquid sugar, treacle, starch solution, glucose.

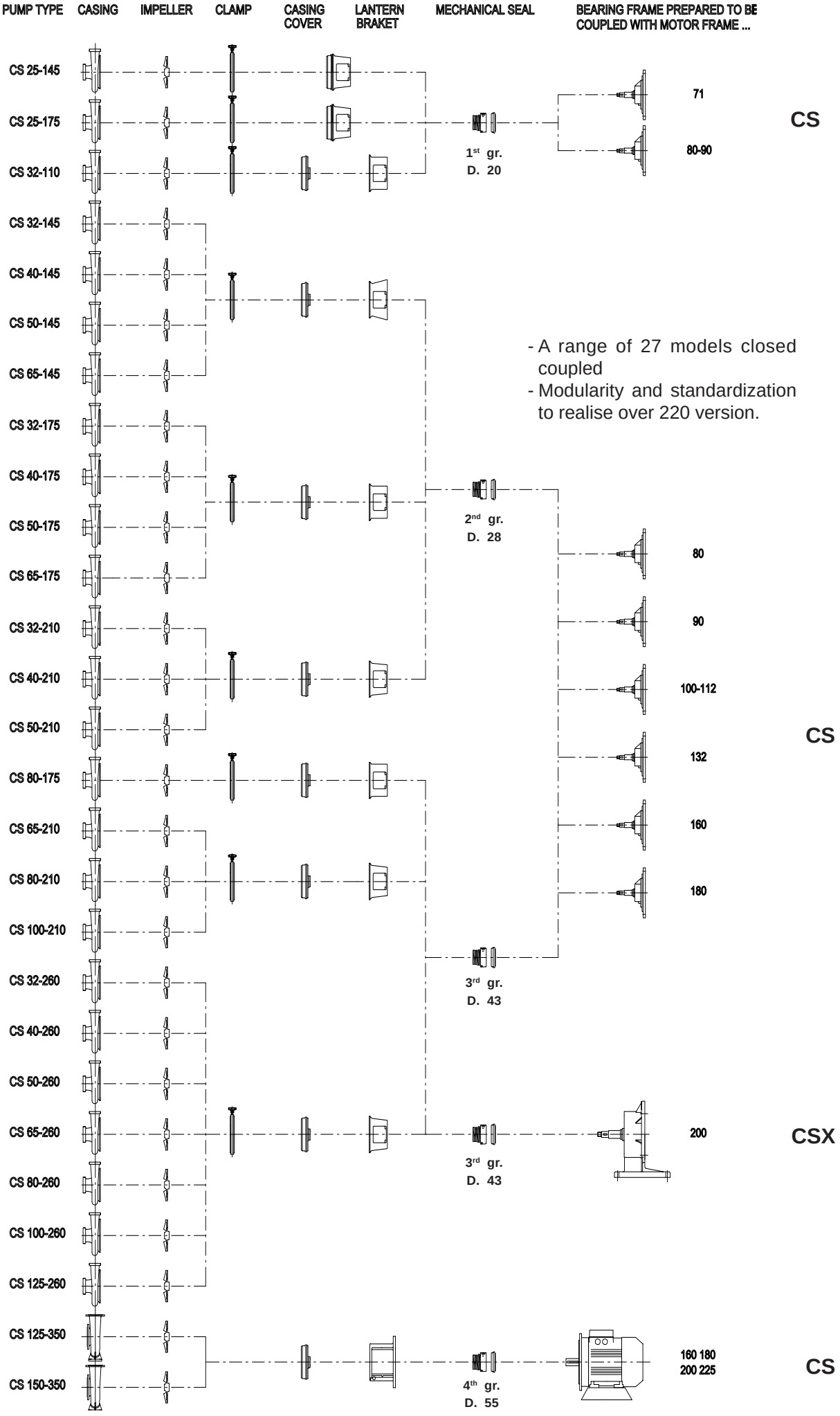
MEAT APPLICATIONS
Brine, meat broth, blood

BREWING
Malt and water mixing, malt must, yeast.

CHEMICALS
Photographic solutions, acid solutions, basic solutions, alkaline solutions, waste water containing crystals, detergents, solvents.

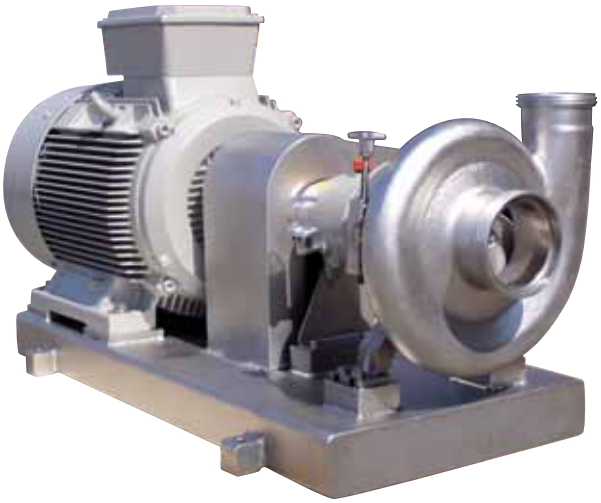
Water conditioning, Evaporation, Distillation, Reverse osmosis, Filtration, Extraction, Carbonation, Heating/pressure increase, Fermentation, Emulsifying, Homogenised re-processing, Mechanical separation, Bottling, Dosing, Degassing, Transfer, Cleaning applications / CIP, In-line mixing.

CS - CSX SERIES



- A range of 27 models closed coupled
- Modularity and standardization to realise over 220 version.

VARIOUS EXECUTIONS



CSK PUMP

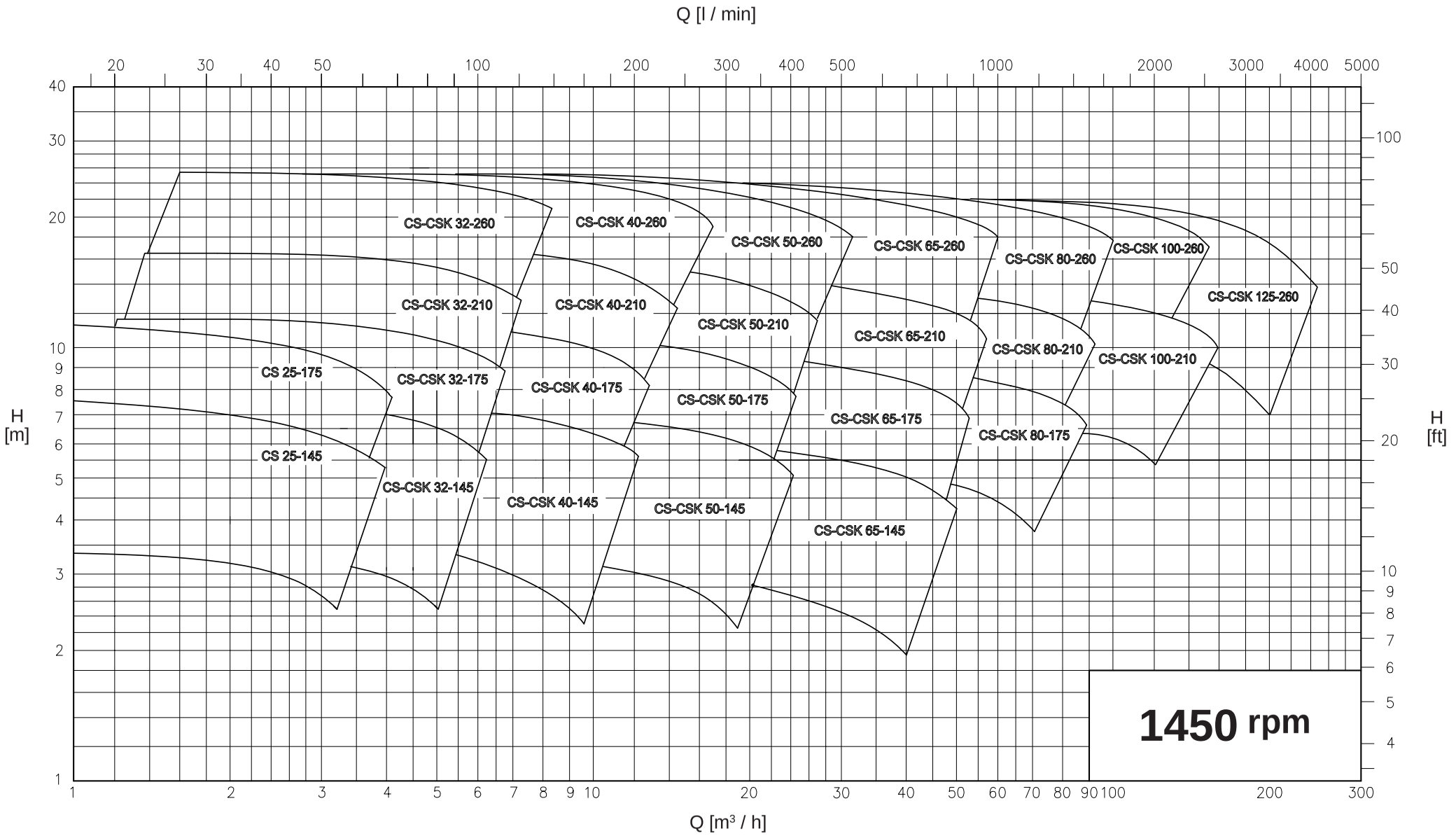
The CSK version differs from the other versions for the double separate support and oil greased bearings.

CSD aseptic pump

In particularly critical inlet suction conditions with low available NPSH values, which are encountered for example in high vacuum extraction applications, liquids near to boiling point and limited available head, the special version equipped with inducer on the in-take port can be used.
This device is arranged immediately upstream of the impeller to reduce the NPSH value requested by the pump. It is advisable to always contact CSF INOX engineers for this type of application.

GENERAL DIAGRAM CS - CSK

1450 rpm



Performance applies to H2O at 20 °C, 1013 millibar

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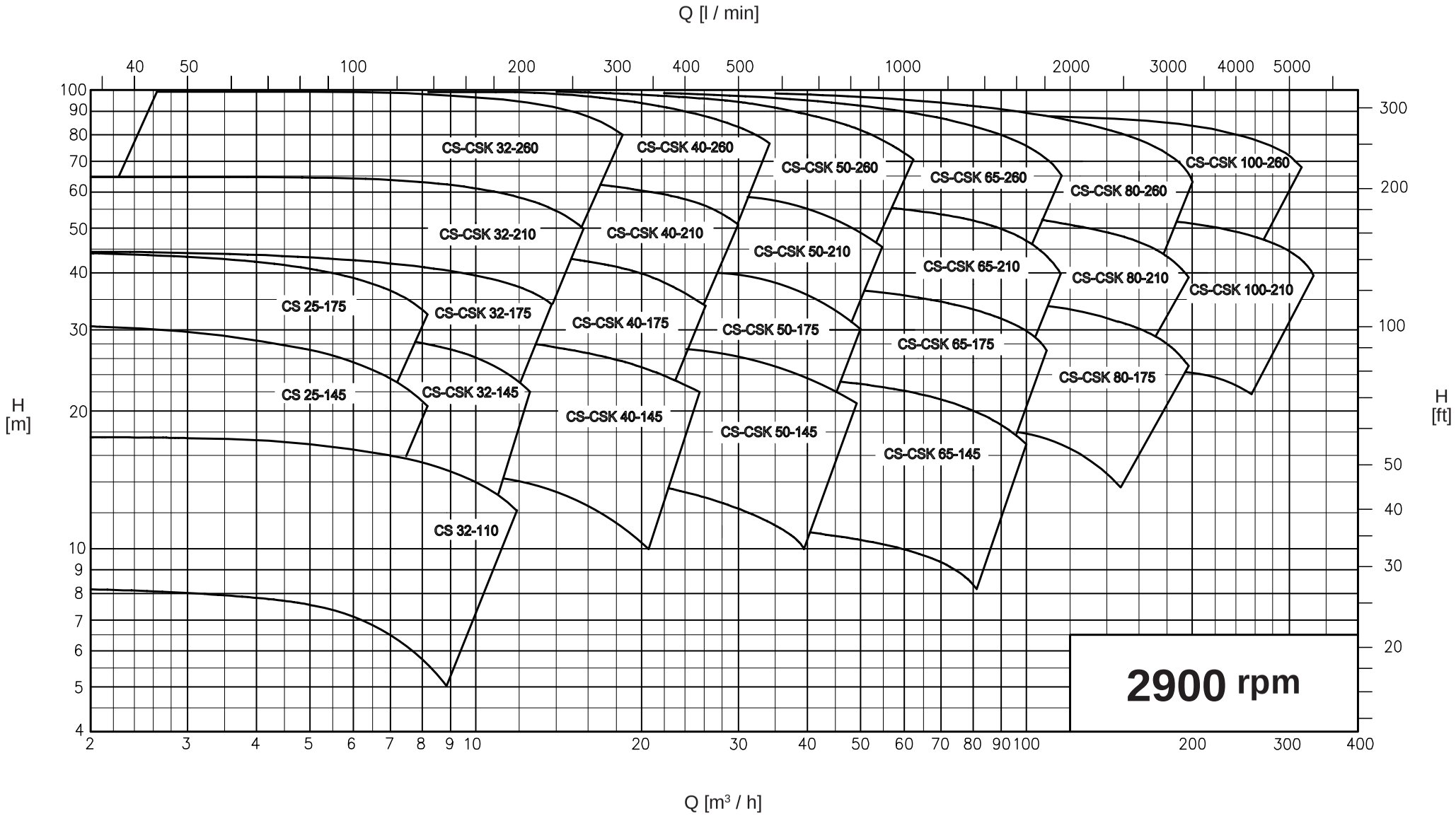
Rev. 00

Rev. 00

GENERAL DIAGRAM CS - CSK

2900 rpm



Performance applies to H2O at 20 °C, 1013 millibar

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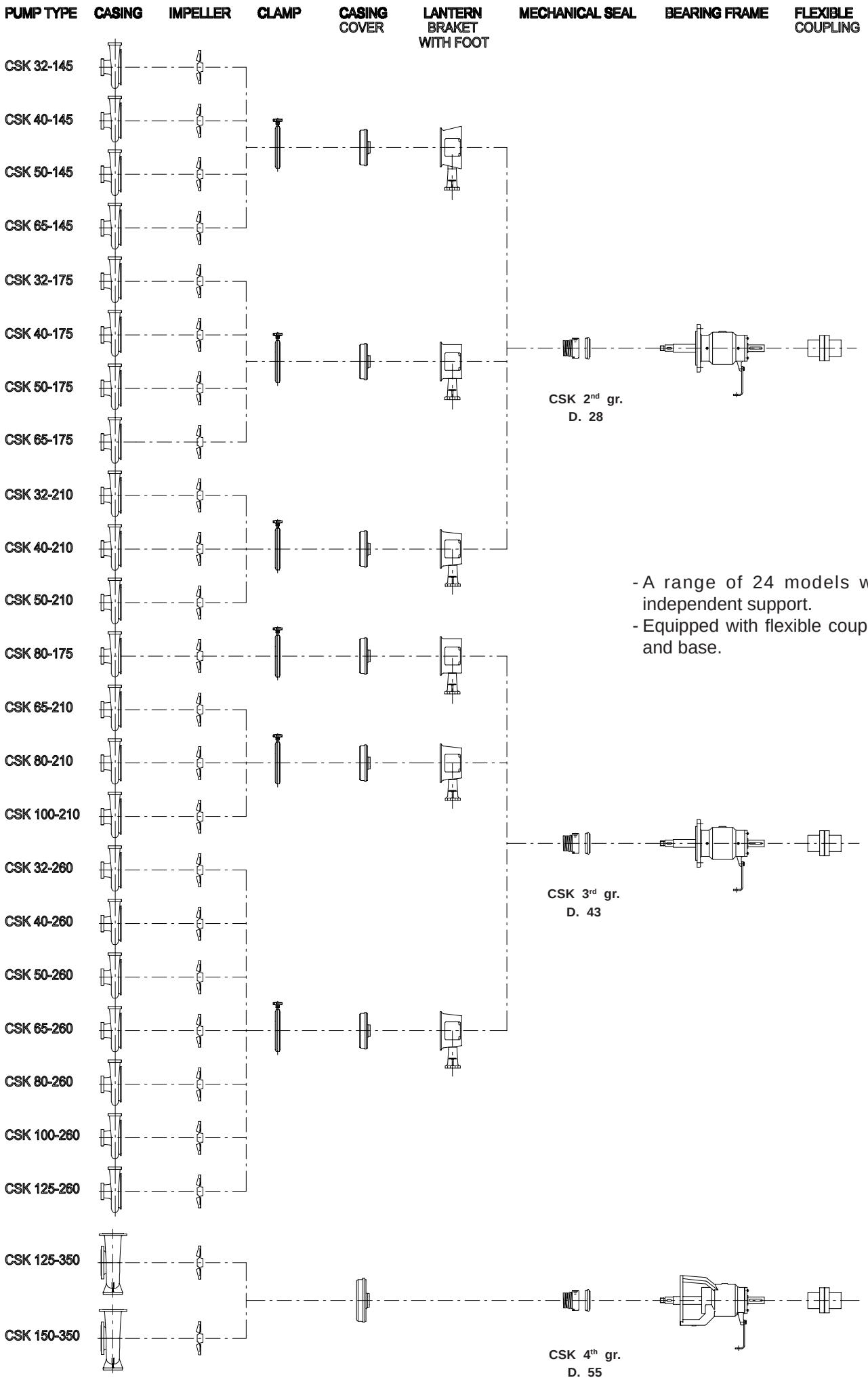
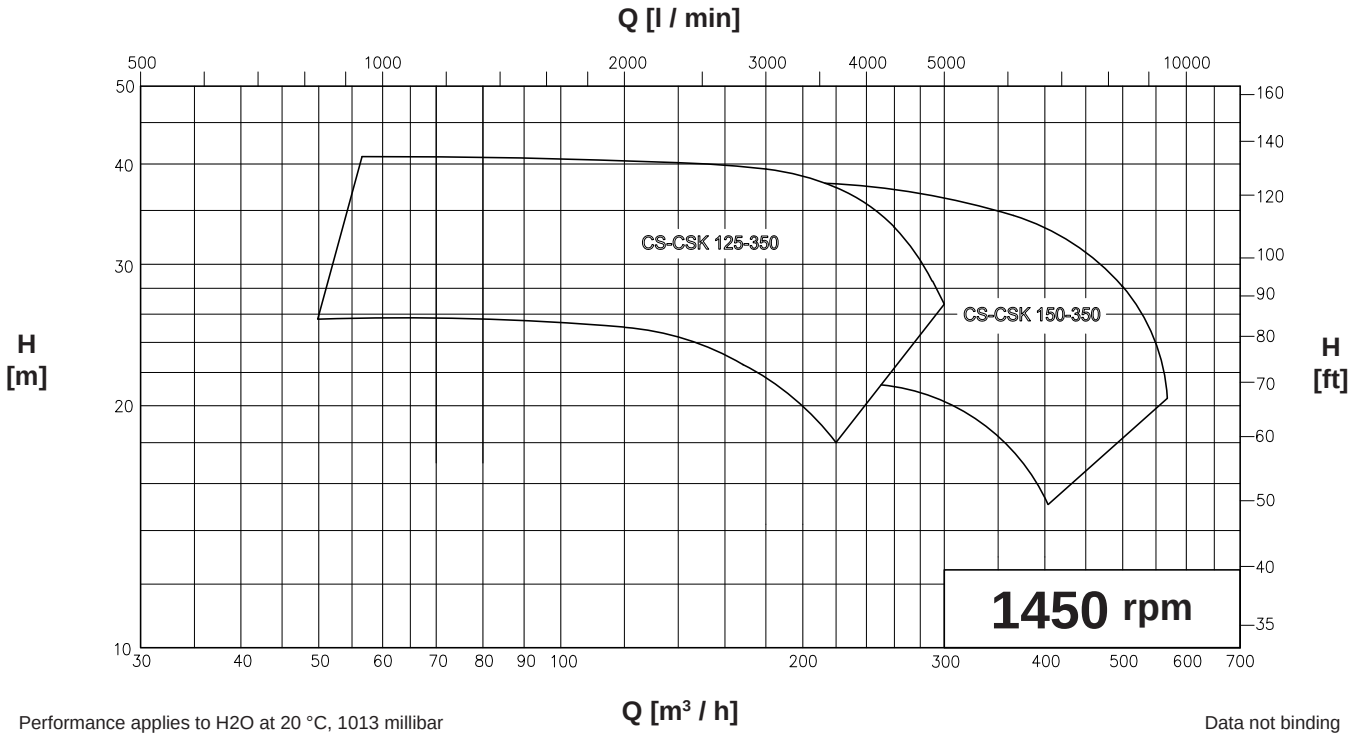
CSK SERIES



- A range of 24 models with independent support.
- Equipped with flexible coupling and base.

Rev. 00

“CSK” EXECUTION 4th GROUP



Performance applies to H2O at 20 °C, 1013 millibar

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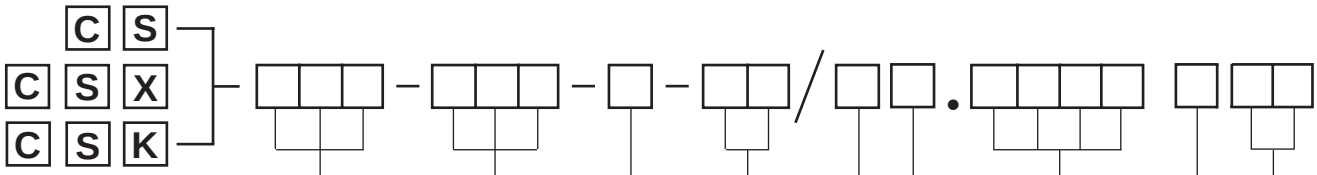
PUMP CODES GUIDE



25
32
40
50
65
80
100
125
150

PUMP SIZE

110
145
175
210
260
350

IMPELLER DIAMETER

2 (2900/3500 [rpm])
4 (1450/1750 [rpm])
6 (960/1150 [rpm])

NO. OF POLES

HP — **BRAKE HORSEPOWER**

B : **Stainless steel**

UNI EN 10283	**- 1.4409**
ACI-ASTM 743-98	**- CF3M**
UNI EN 10088	**- 1.4404**
AISI	**- 316L**

PUMP MATERIAL
(Product wetted steel parts)

D - Fluorocarbon (Viton)
M - EPDM
S - Silicon
T - P.T.F.E. (Fep)

PUMP SEALS
(Product wetted seals)

A - Inducer
C - Casing drainage
D - “DS” connections
I - Heated casing
K - Heated casing cover
L - Flanged connections
M - "SMS" connections
N - "Clamp" connections
O - "IDF" connections
P - Motor shroud
S - Welding connections
J - "RJT" connections
Z - Ex-Proof motor

SPECIAL EXECUTIONS

Q - Double flushed mechanical seal
T - Internal mechanical seal
U - External mechanical seal + TMR
V - Internal mechanical seal + TMR
Y - External mechanical seal
W - Internal mechanical seal + Forced product circulation
WH - Protected mechanical seal + Forced product circulation

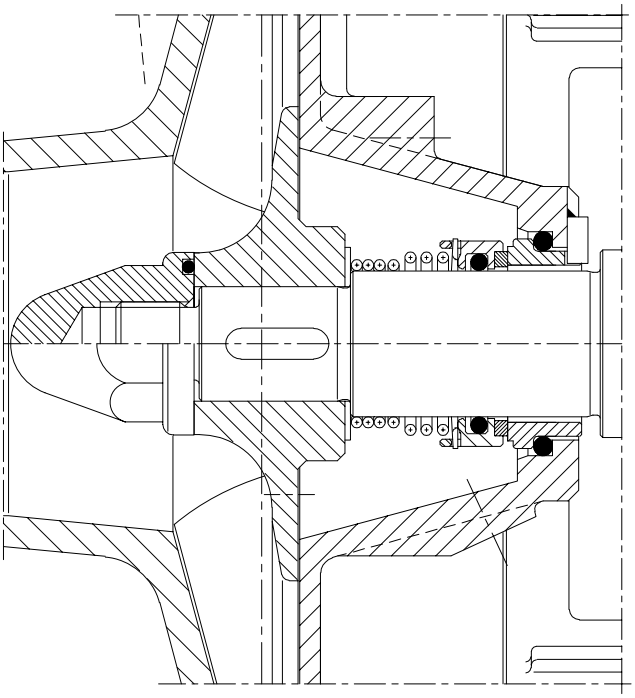
MECHANICAL SEALS

□ □ Material code (ref. tab. CD004)

Example: CS 80-175-2-20 / B.LPT31

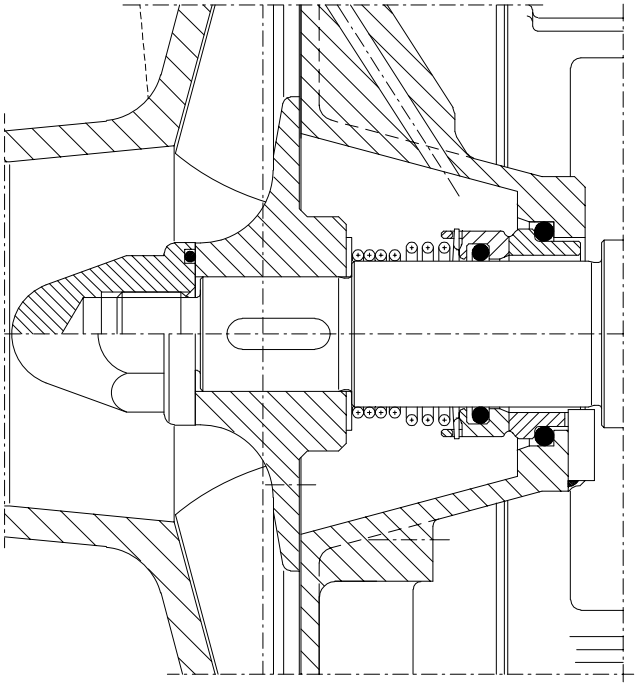
MECHANICAL SEALS

Mechanical seals with standardized seats according to the following standards are fitted on CS pumps:
EN 12756, ISO 3069.
Thanks to the different materials available the customer can choose the most suitable versions among the many available, depending on the product to be pumped, the temperatures and working performance.The various applications meet and resolve the widest variety of installation and operational conditions.



EXECUTIONS T

STANDARD MECHANICAL SEAL "T"
The standard version entails the installation of an internal mechanical seal, dipped in the product and fitted behind the impeller in a suitable conic chamber in order to ensure correct lubrication conditions.



EXECUTION W

MECHANICAL SEAL WITH "W" CIRCULATION
Internal mechanical seal with forced circulation of the pumped liquid to restrict the working temperature, to eliminate air and steam bubbles, to improve lubrication and avoid residues or deposits on the seal.

MECHANICAL SEALS

MATERIAL CODES

METALS
- **H** - Nickel-plated stainless steel AISI 304
- **X** - Molybdenum nickel-plated stainless steel AISI 316
- **J** - Stellite coating on stainless steel
- **L** - Hastelloy *Union Carbide*

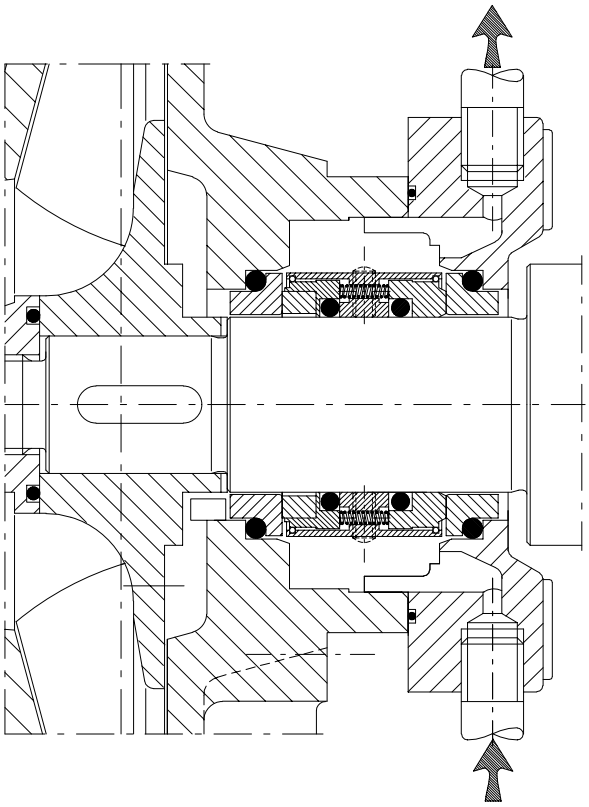
CARBONS
- **V** - Normal carbon
- **Z** - Special carbon

RESINS
- **5** - Normal PTFE
- **4** - Loaded PTFE
- **F** - O-Ring FEP

METAL CARBONS
- **3** - Hard metal welded on stainless steel (TUC)
- **R** - Integral anti-corrosion hard metal (TUC)
- **K** - Integral silicate carbon SIC

METAL OXIDES
- **2** - Alumina ceramic

ELASTOMERS
- **6** - Nitrile
- **7** - Ethylene propylene
- **Y** - Fluorocarbon (Viton)
- **B** - Silicone
- **U** - Kalrez



EXECUTION Q

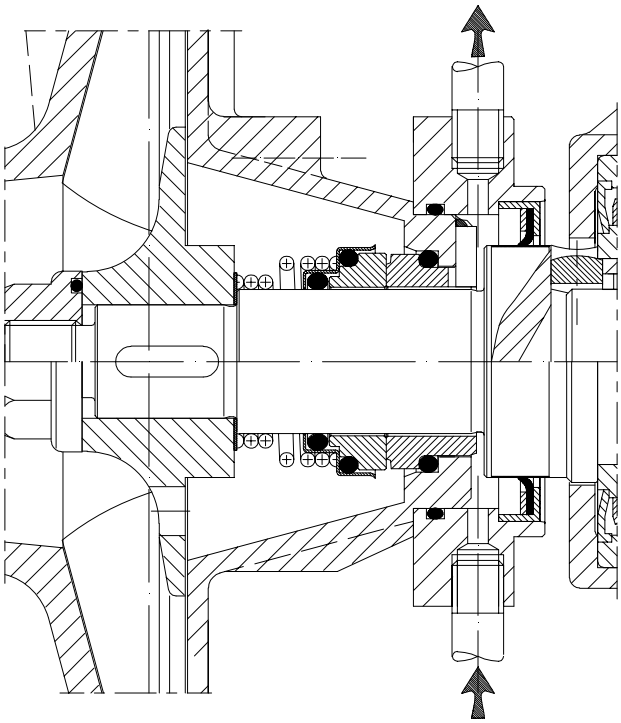
COMPACT DOUBLE MECHANICAL SEAL "Q"

Double mechanical seal with circulation of the cleaning and cooling liquid.

It is used with products that tend to crystallise, to glue, to harden, to be abrasive and corrosive, to reach high temperatures and whenever the internal single seal life is limited.

The function of the fluxing is to clean, lubricate and cool the seal; the circulating liquid must be clean.

If the seal is leaking the fluxing liquid will point out this fault.



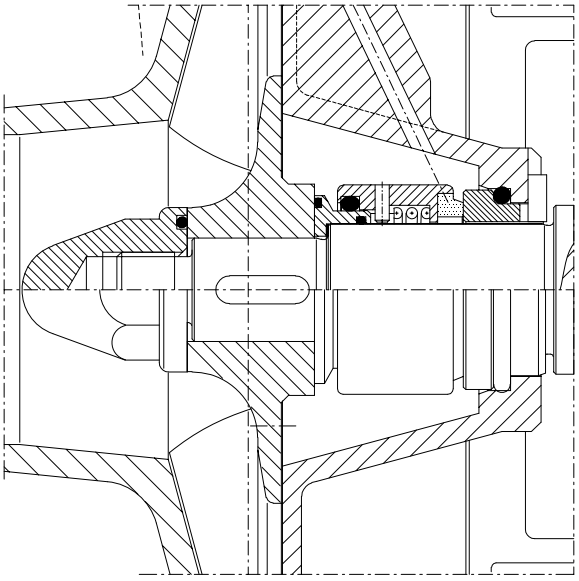
EXECUTION V

INTERNAL MECHANICAL SEAL ASSEMBLY "V"

The external liquid circulation chamber creates a protective barrier and prevents any damages to the electric motor and contamination of the environment, due to the possible leakage of the internal mechanical seal with aggressive or toxic liquids.

The function of the flushing is to clean the seal surfaces in order to limit the wear.

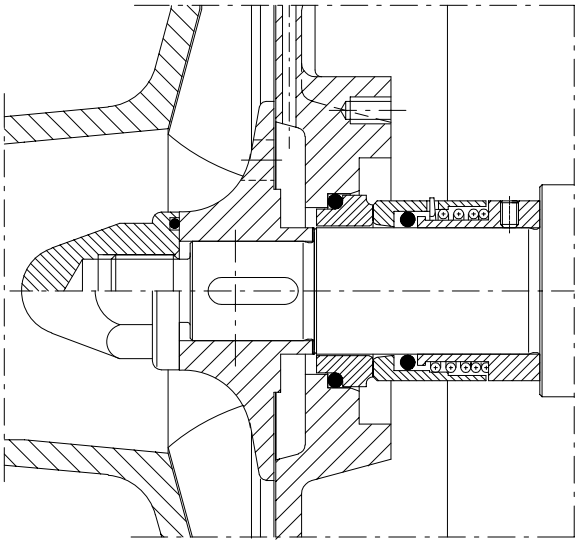
MECHANICAL SEALS



EXECUTION WH

INTERNAL MECHANICAL SEAL "WH"

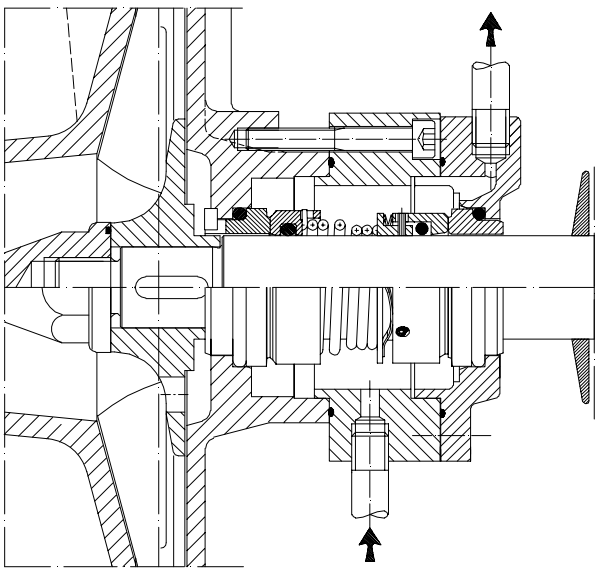
Protected, balanced and bi-directional execution with forced circulation of the liquid pumped. It is suitable for viscous and dirty products, for vacuum applications or those subject to differences in pressure. It is easily cleaned and therefore ideal for sanitary and pharmaceutical applications etc.



EXECUTION Y

EXTERNAL MECHANICAL SEAL "Y"

For all cases where the mechanical seal must not touch the pumped product, in order to avoid sanitary problems, corrosion and conditioning of its running.

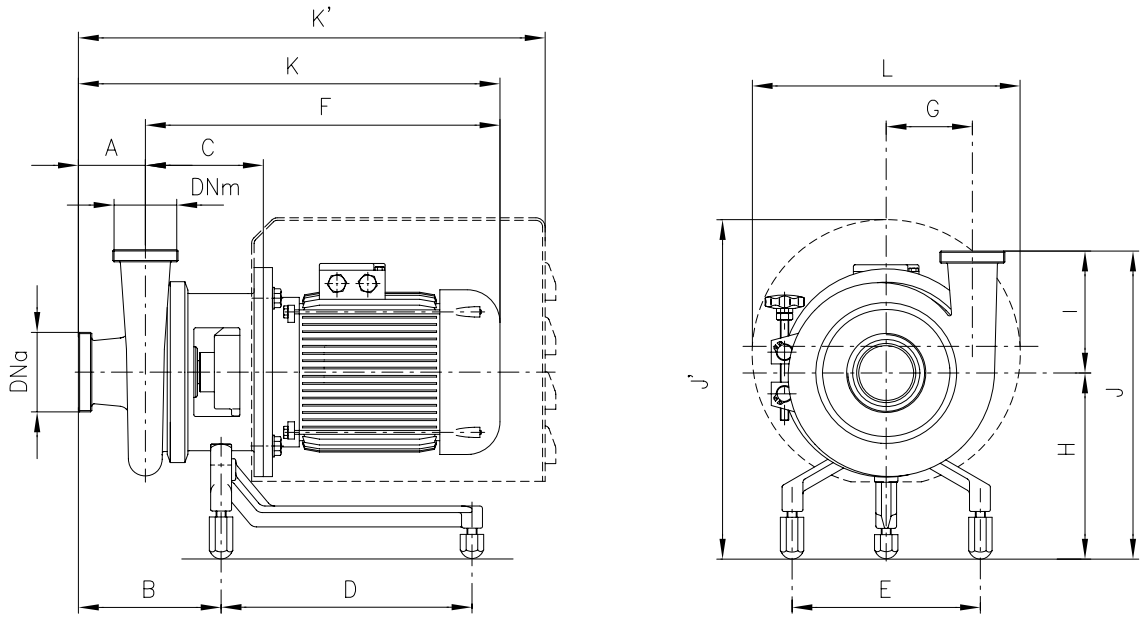


EXECUTION Q FOR CSK SERIES

DOUBLE MECHANICAL SEAL "Q"

Double mechanical seal (back-to-back) with liquid circulation. The function of the fluxing is to clean, lubricate and cool the seal; the circulating liquid must be clean. If the seal is leaking the fluxing liquid will point out this fault. It is used with products that tend to crystallise, to glue, to harden, to be highly abrasive, to reach high temperatures and whenever the seal life is limited.

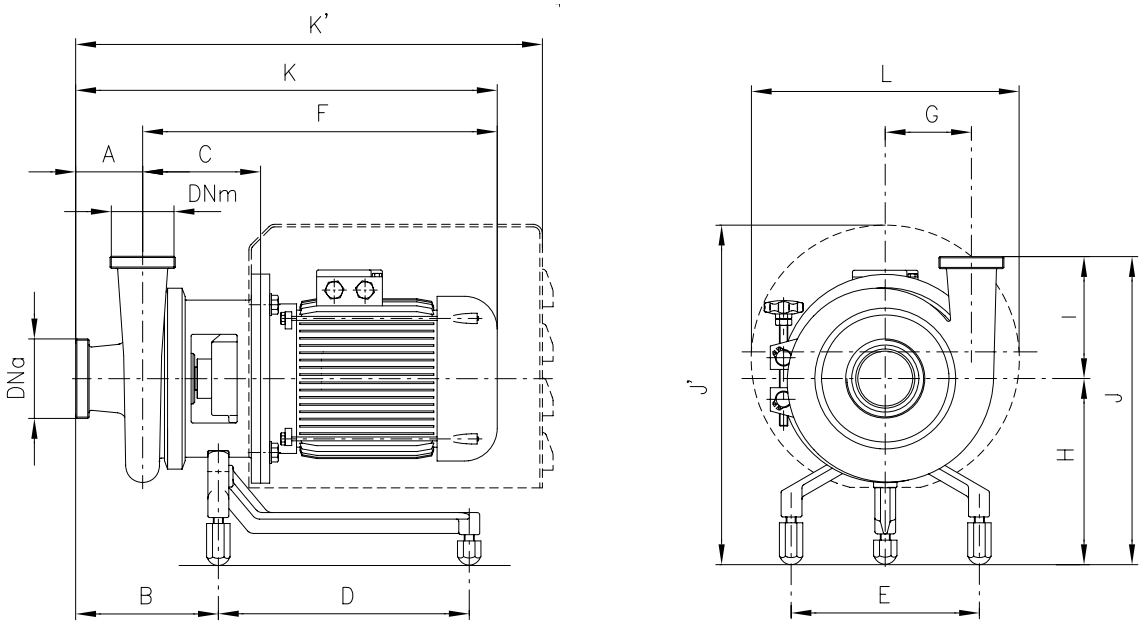
MOTOR POWER FROM 0,37 kW TO 4 kW (SIZE IEC 71-112)



Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	F	G	H	K	K'	I	J	J'	L	Weight kg
CS 25-145	**1450 rpm**	0,37 0,55 0,75	32	25	75	144	117 123	190	178	327 357	81	158	402 432	534	145	303	295	239	21,5
CS 25-175		0,37 0,55 0,75	32	25	65	134	117 123	190	178	327 357	96	164	392 422	525	149	313	301	239	
CS 32-110		0,37 0,55 0,75	40	32	70	137	117 123	190	178	327 357	65	149	397 427	530	110	259	286	239	
CS 32-145		0,55 0,75	40	32	80	167	138	231	225	372	85	208	452	566	145	353	372	298	
CS 32-175		0,55 0,75 1,1	40	32	80	167	139	231	225	373 420	95	213	453 500	567	150	363	377	298	
CS 32-210		0,75 1,1 1,5 2,2 3	40	32	80	158	139 140	231 301	225	373 420 452	110	221 238	453 500 532	567 637	165	386 403	385 402	298	36 53
CS 32-260		1,1 1,5 2,2 3 4	50	32	90	184	163 164	231 301	225	444 476 497	140	221 238	534 566 587	601 671	172	393 410	385 402	298	
CS 40-145		0,55 0,75	50	40	80	168	139	231	225	373	90	208	453	567	133	341	372	298	
CS 40-175		0,75 1,1 1,5	50	40	80	169	141	231	225	375 422	95	213	455 502	569	150	363	377	298	
CS 40-210		0,75 1,1 1,5 2,2	50	40	80	161	141 142	231 301	225	375 422 454	115	221 238	455 502 534	569 639	165	386 403	385 402	298	42,5 40 53
CS 40-260		1,5 2,2 3 4	50	40	100	194	163 164	231 301	225	444 476 497	145	221 238	544 576 597	611 681	172	393 410	385 402	298	63
CS 50-145		0,75 1,1 1,5	65	50	80	170	141	231	225	374 422	95	208	454 502	569	145	353	372	298	

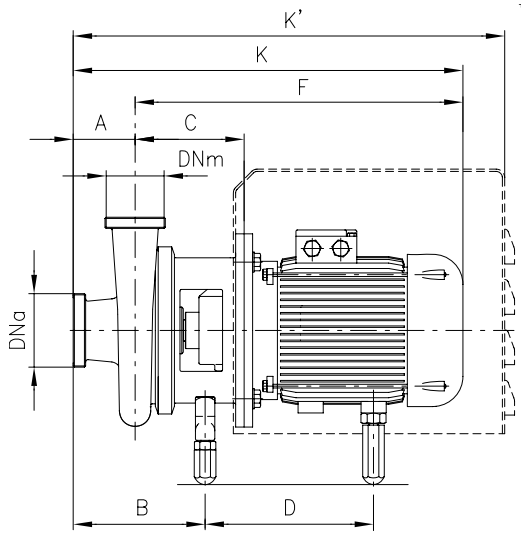
MOTOR POWER FROM 0,55 kW TO 4 kW (SIZE IEC 80-112)

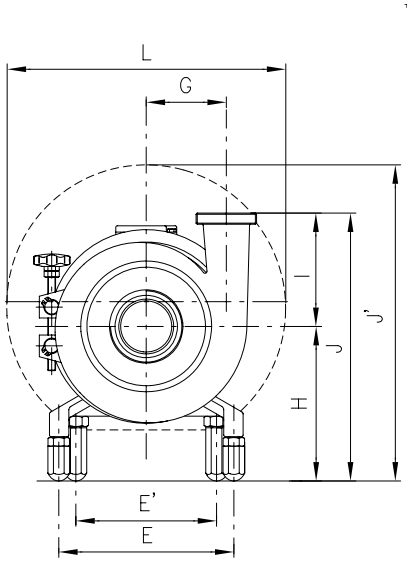


Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	F	G	H	K	K'	I	J	J'	L	Weight kg
CS 50-175	**1450 rpm**	0,55 0,75 1,1 1,5	65	50	80	169	141	231	225	374	100	213	454	569	150	363	377	298	
										422			502						
		2,2 3					142	301		454		230	534	639		380	394		
		4								475			555						
CS 50-210		1,1 1,5 2,2 3	65	50	80	161	141	231	225	422	120	221	502	569	165	385	385	298	
							142	301		454		238	534	639		402			54
		4								475			555						
CS 50-260		2,2 3	65	50	90	185	165	301	225	477	145	238	567	672	175	413	402	298	
		4								498			588						68 75
CS 65-145		0,55 0,75 1,1 1,5	80	65	79	173	145	231	225	379	112	208	458	572	145	353	372	298	
										426			505						
CS 65-175		1,1 1,5 2,2 3	80	65	80	172	144	231	225	425	120	213	505	572	150	363	377	298	
							145	301		457		230	537	642		380	394		
		4								478			558						
CS 65-210		1,1 1,5 2,2 3	80	65	90	189	168	231	225	449	135	221	539	605	165	386	385	298	
							169	301		481		238	571	676		403	402		
		4								502			592						
CS 65-260		2,2 3	80	65	100	198	168	301	225	480	155	238	580	685	205	443	402	298	
		4								501			601						
CS 80-175		2,2 3	100	80	100	204	174	301	225	486	139	230	586	691	164	394	394	298	
		4								507			607						
CS 80-210		2,2 3	100	80	100	201	171	301	225	483	145	238	583	688	165	403	402	298	
		4								504			604						66,5
CS 80-260		3	100	80	100	201	171	301	225	483	165	238	583	688	209	447	402	298	
		4								504			604						

MOTOR POWER FROM 5,5 kW TO 18,5 kW (SIZE IEC 132-160)





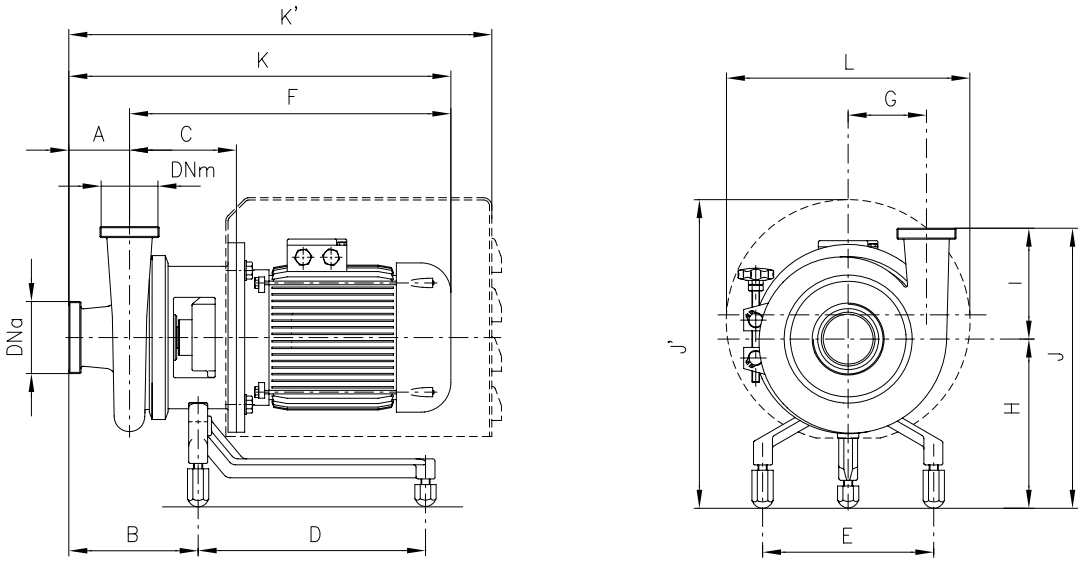
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	I	J	J'	L	Weight kg
CS 65-260	1450 rpm	5,5 7,5 9,2	80	65	100	198	190	307	225	115	563	155	238	663	728	205	443	455	370	
											607			707	783					
		11					230	434		140	708		247	808	983		452	507	430	
CS 80-175		5,5 7,5	100	80	100	204	195	307	225	115	568	139	230	668	734	164	394	447	370	
CS 80-210		5,5 7,5	100	80	100	201	193	307	225	115	566	145	238	666	731	165	403	455	370	
CS 80-260		5,5 7,5 9,2	100	80	100	201	193	307	225	115	566	165	238	666	731	209	447	455	370	
											610			710	786					
		11 15					233	434		140	711		247	811	986		456	507	430	
CS 100-210		5,5 7,5	125	100	111	219	200	307	225	115	573	161	238	683	750	214	452	455	370	
CS 100-260		9,2	125	100	115	218	195	307	225	115	612	186	238	727	803	216	454	455	370	
		11 15					235	434		140	713		247	828	1004		463	507	430	
		18,5						532		279	795			910	1118			579	420	
CS 125-260		9,2	150	125	110	223	203	307	225	115	620	206	238	730	806	216	454	455	370	
		11 15					244	434		140	722		247	832	1007		463	507	430	
		18,5						532		279	804			914	1102			579	420	

**PUMP SERIES "CS"
WITH TROLLEY**

**PUMPS SERIES "CS"
WITHOUT SHROUD**

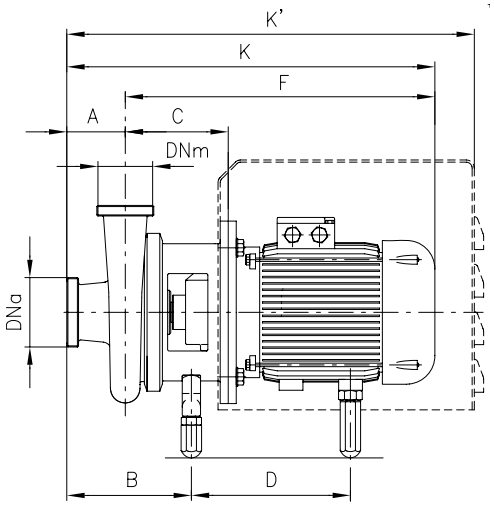
MOTOR POWER FROM 0,55 kW TO 4 kW (SIZE IEC 71-112)

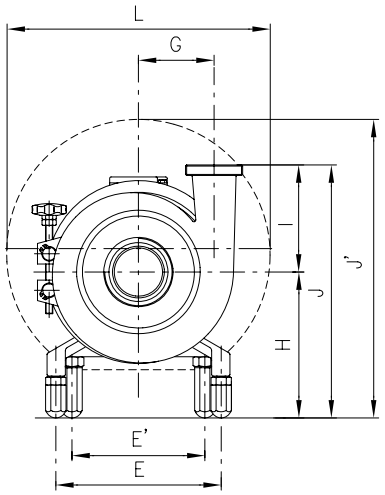


Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	F	G	H	K	K'	I	J	J'	L	Weight kg
CS 25-145	**2900 rpm**	0,55	32	25	75	144	117	190	178	327	81	158	402	534	145	303	295	239	
		0,75																	
		1,1					123			357			432						29,5
		1,5																	32
		2,2								404			479						
CS 25-175		0,75	32	25	65	134	123	190	178	357	96	164	422	525	149	313	301	239	
		1,1																	
		1,5								404			469						
		2,2																	
		3					138	301	225	458		210	523	601		359	381	298	
		4								471			536						
CS 32-110		0,55	40	32	70	137	117	190	178	327	65	149	397	530	110	259	286	239	
		0,75																	24,5
		1,1					123			357			427						
		1,5								404			474						
CS 32-145		0,75	40	32	80	167	138	231	225	372	85	208	452	566	145	353	372	298	
		1,1																	34
		1,5								419			499						
		2,2																	40
		3					139	301		451		225	531	636		370	389		47,5
		4								473			553						
CS 32-175		1,5	40	32	80	167	139	231	225	420	95	213	500	567	150	363	377	298	
		2,2																	41,5
		3					140	301		452		230	532	637		380	394		49
		4								473			553						53,5
CS 32-210		3	40	32	80	158	140	301	225	452	110	238	532	637	165	403	402	298	
		4								473			553						57,5
CS 40-145		1,5	50	40	80	168	139	231	225	420	90	208	501	567	133	341	372	298	
		2,2																	40
		3					140	301		452		225	532	637		358	389		45
		4								473			553						55,5
CS 40-175		2,2	50	40	80	169	141	231	225	422	95	213	502	569	150	363	377	298	
		3					142	301		454		230	534	639		380	394		
		4								475			555						55,5
CS 40-210		3	50	40	80	161	142	301	225	454	115	238	534	639	165	403	402	298	
		4								475			555						
CS 50-145		1,5	65	50	80	170	141	231	225	422	95	208	502	569	145	353	372	298	
		2,2																	
		3					142	301		454		225	534	639		370	389		49,5
		4								475			555						55,5
CS 50-175		3	65	50	80	169	142	301	225	454	100	230	534	639	150	380	394	298	
		4								475			555						
CS 65-145		3	80	65	79	173	146	301	225	458	112	225	537	642	145	370	389	298	
		4								479			558						

MOTOR POWER FROM 5,5 kW TO 22 kW (SIZE IEC 132-180)

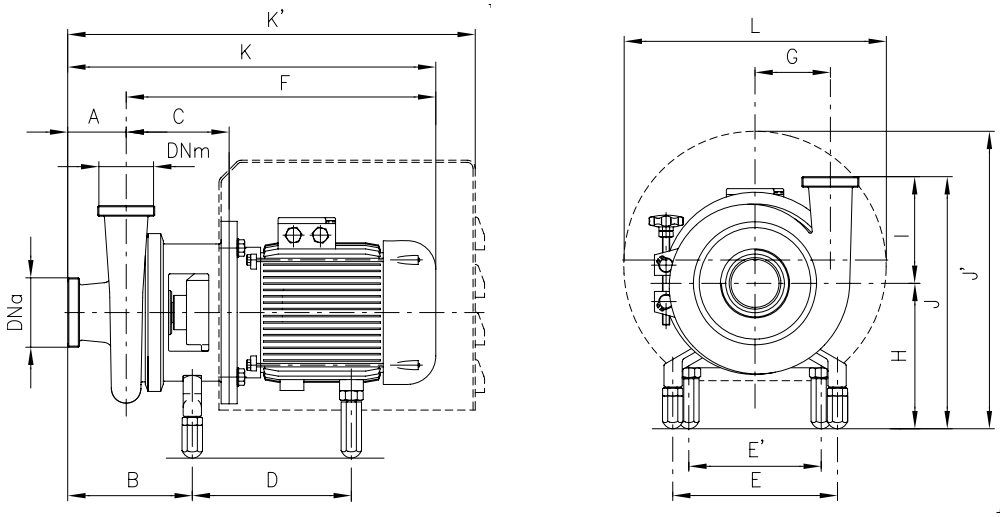




Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	I	J	J'	L	Weight kg
CS 32-210	**2900 rpm**	5,5	40	32	80	158	161	298	225	115	534	110	238	614	680	165	403	455	370	81
		7,5																		
		9,2									578			658	735					
		11					206	430		140	684			764	935			494	430	
CS 32-260		5,5	50	32	90	184	185	307	225	115	558	140	238	648	714	172	410	455	370	
		7,5																		
		9,2									581			692	769					105
		11					225	434		140	703		247	793	967		419	507	430	139
		15																		
CS 40-175		5,5	50	40	80	169	164	290	225	115	537	95	230	617	682	150	380	447	370	74
		7,5																		
		9,2									581			661	737					
		11				161	208	422		140	686	115	238	766	937	165	403	486	430	
CS 40-210		5,5	50	40	80	161	164	298	225	115	537	115	238	617	682	165	403	455	370	
		7,5																		82,5
		9,2									581			661	737					93
		11					208	430		140	686			766	937			494	430	
		15																		
CS 40-260		7,5	50	40	100	194	185	307	225	115	558	145	238	658	724	172	410	455	370	
		9,2									602			702	779					101,5
		11					225	434		140	703		247	803	978		419	507	430	
		15																		146,5
		18,5																		
		22						532		279	785			885	1094			579	420	
CS 50-145		5,5	65	50	80	170	164	289	225	115	537	95	225	617	682	145	370	442	370	72,5
		7,5																		80
CS 50-175		5,5	65	50	80	169	164	291	225	115	537	100	230	616	682	150	380	447	370	75
		7,5																		80
		9,2									581			661	737					90
		11					208	422		140	686			766	937			486	430	
		15																		
CS 50-210		5,5	65	50	80	161	164	298	225	115	537	120	238	617	682	165	403	455	370	
		7,5																		85
		9,2									581			661	737					
		11					208	429		140	686			766	937			494	430	121,5
		15																		
		18,5																		
		22				171	223	532		279	783		248	863	1072		413	580	420	
CS 50-260		15	65	50	90	186	228	434	225	140	706	145	247	796	970	175	422	507	430	
		18,5																		
		22						532		279	788			878	1087			579	420	
CS 65-145		5,5	80	65	79	173	168	289	225	115	541	112	225	620	685	145	370	442	370	82
		7,5																		
		9,2									585			664	740					
		11					212	420		140	690			769	940			481	430	
CS 65-175		5,5	80	65	80	172	167	290	225	115	540	120	230	620	685	150	380	447	370	
		7,5																		
		9,2									584			664	740					
		11					211	422		140	689			769	940			486	430	120
		15																		
		18,5																		
		22				173	224	531		279	784		241	864	1073		391	573	420	

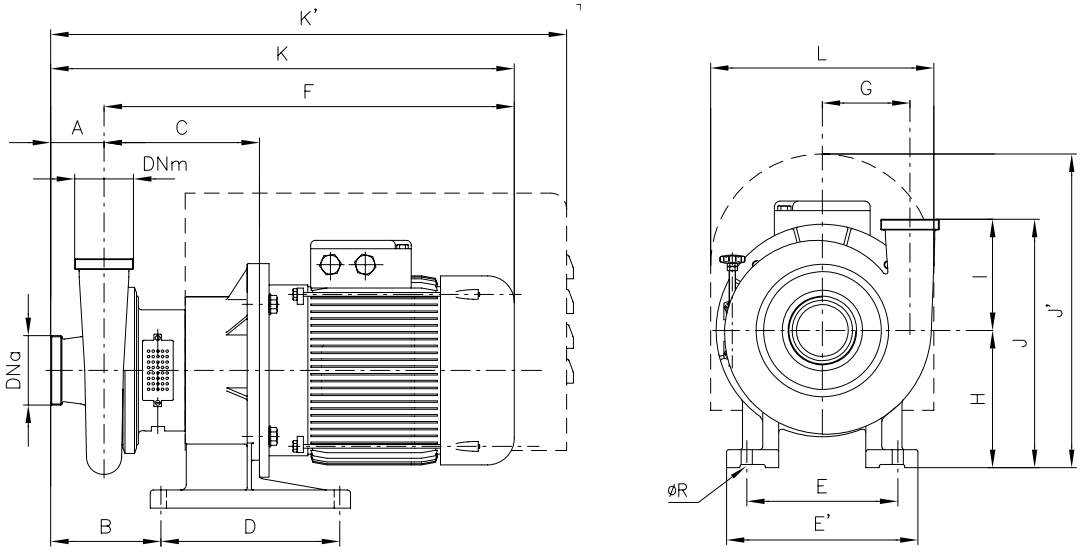
MOTOR POWER FROM 11 kW TO 22 kW (SIZE IEC 160-180)



Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

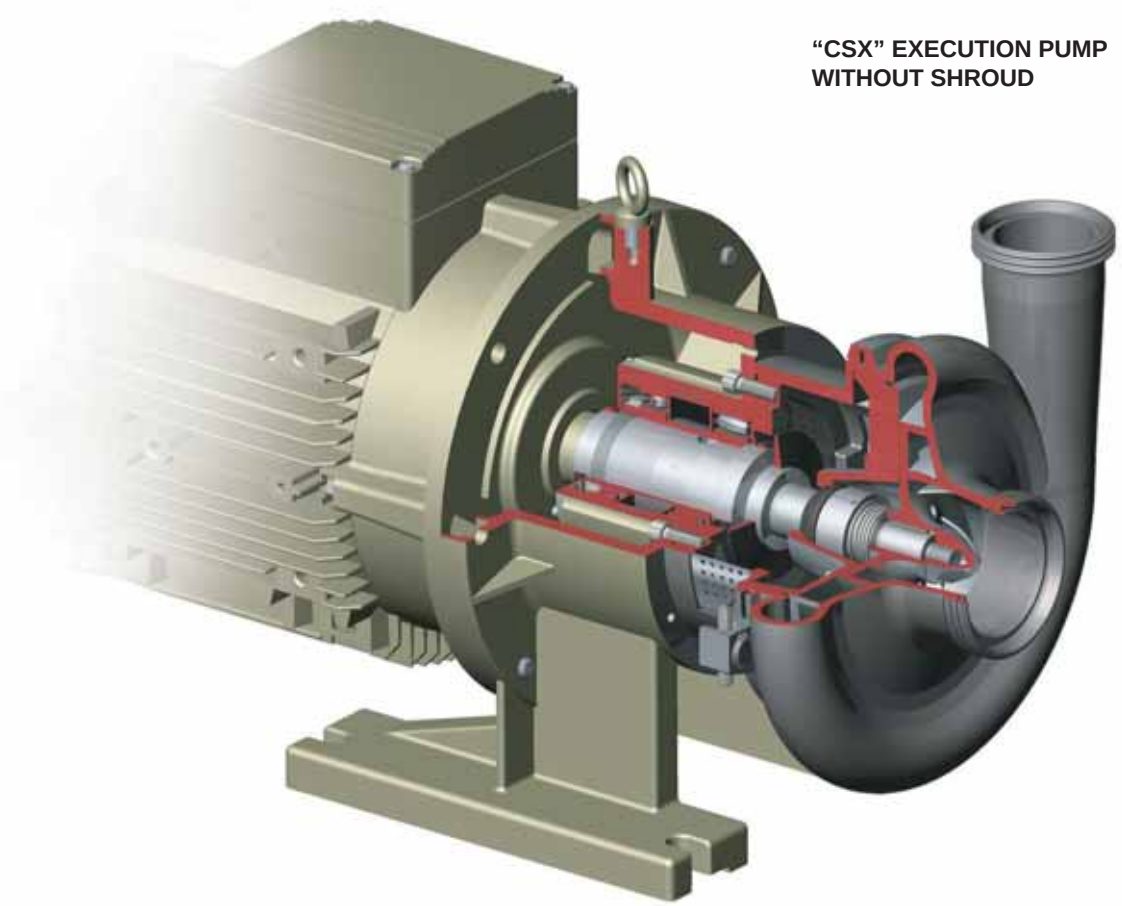
Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	I	J	J'	L	Weight kg
CS 65-210	**2900 rpm**	11	80	65	90	189	231	434	225	140	709	135	247	799	974	165	412	507	430	134
		15																		143
		18,5																		
		22						532		279	791			881	1090			579	420	211
CS 65-260		15	80	65	100	198	230	434	225	140	708	155	247	808	983	205	452	507	430	
		18,5																		
		22						532		279	790			890	1099			579	420	
CS 80-175		11	100	80	100	205	236	432	225	140	714	139	241	814	989	164	405	497	430	140,5
		15																		
		18,5																		
		22						531		279	796			896	1105			573	420	
CS 80-210		15	100	80	100	201	233	434	225	140	711	145	247	811	986	164	411	507	430	
		18,5																		
		22						532		279	793			893	1102			579	420	
CS 100-210		22	125	100	111	219	240	532	225	279	800	161	247	911	1120	214	461	579	420	

"X" EXECUTION FOR POWER OF 30 KW (SIZE IEC 200)



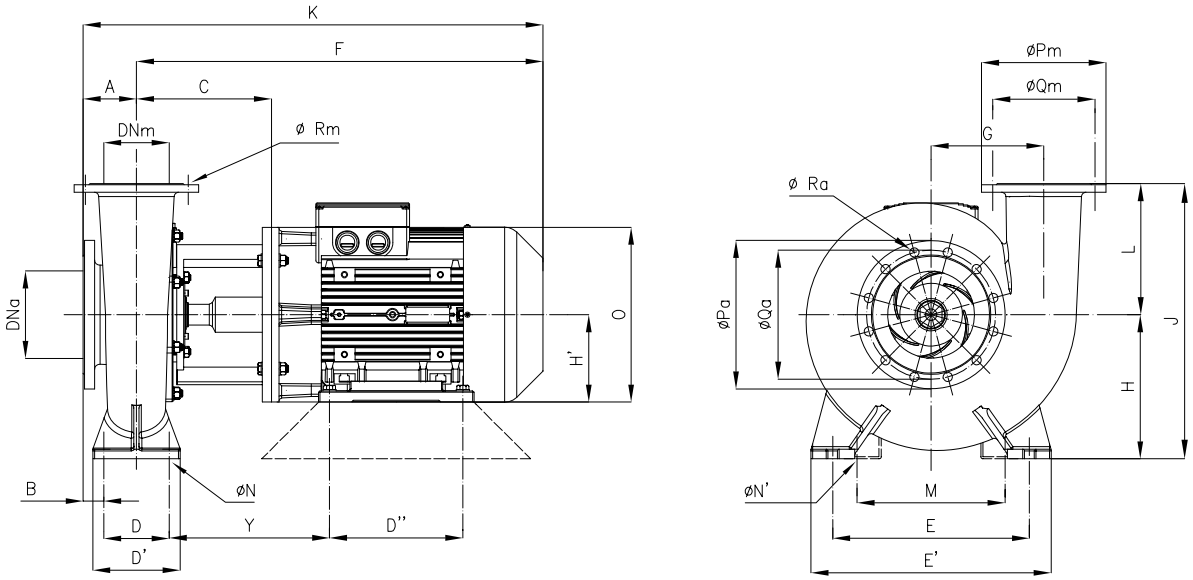
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	ØR	I	J	J'	L	Weight kg
CSX 50-260	**2900 rpm**	30	65	50	90	201	296	335	284	360	856	145	258	952	1087	21	175	433	590	420	
CSX 65-260		30	80	65	100	213	298	335	284	360	858	155	258	958	1099	21	205	463	590	420	
CSX 80-175		30	100	80	100	219	304	335	284	360	864	139	258	964	1105	21	164	422	590	420	
CSX 80-210		30	100	80	100	216	301	335	284	360	861	145	258	961	1102	21	164	422	590	420	
CSX 80-260		30	100	80	100	216	301	335	284	360	861	165	258	961	1102	21	209	467	590	420	
CSX 100-210		30	125	100	111	234	308	335	284	360	868	161	258	979	1120	21	214	472	590	420	
CSX 100-260		30	125	100	115	233	303	335	284	360	863	186	258	978	1119	21	216	474	590	420	
CSX 125-260		30	150	125	110	237	312	335	284	360	872	206	258	982	1123	21	216	474	590	420	



"CSX" EXECUTION PUMP WITHOUT SHROUD

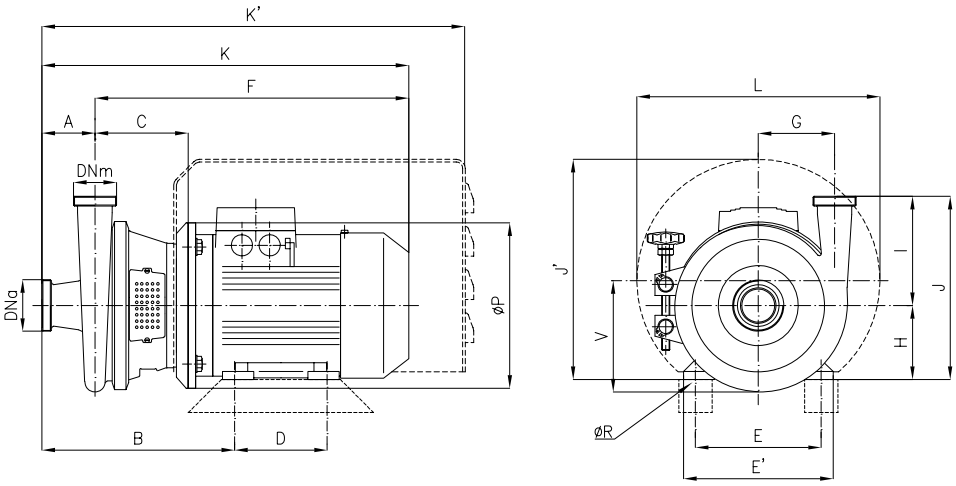
PUMP SERIES "CS" 4th GROUP
CLOSED COUPLED



Dimensions not binding - DN = Flanges EN 1092-1 PN 16

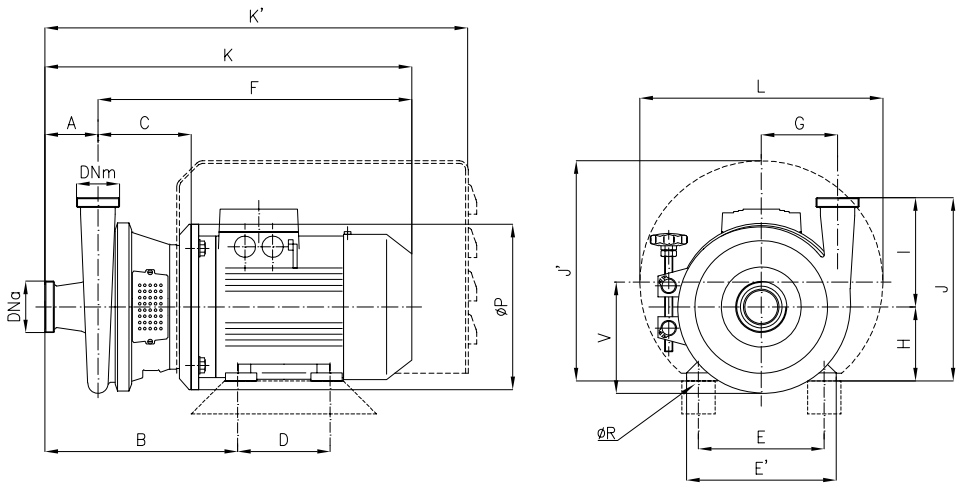
Pumps		kW	DNa	DNm	A	B	C	D	D'	D"	E	E'	F	G	H	H'	K	J	Y	L	M	N	N'	O	Ø Pa	Ø Pm	Ø Qa	Ø Qm	Ø Ra	Ø Rm	no. holes a	no. holes m	Weight kg
CS 125-350	970 rpm	5,5	150	125	122	47	286	150	200	178	400	500	703	232	280	132	825	580	300	300	216	22	12	300	285	250	240	210	22	18	8	8	
		7,5								210			764			160	886		319		254		17	350									
		9,2																															
		11								254																							
		15								279			846			180	968		332		279												
		18,5					303			305			913			200	1035		361		318		19	400									
CS 150-350		7,5	200	150	122	47	292	150	200	210	450	550	770	258	330	160	892	630	325	300	254	22	17	350	340	285	295	240	22	22	12	8	
		9,2																															
		11								254																							
		15								279			852			180	974		338		279												
		18,5					309			305			919			200	1041		367		318		19	400									

Pumps		kW	DNa	DNm	A	B	C	D	D'	D"	E	E'	F	G	H	H'	K	J	Y	L	M	N	N'	O	Ø Pa	Ø Pm	Ø Qa	Ø Qm	Ø Ra	Ø Rm	no. holes a	no. holes m	Weight kg
CS 125-350	1450 rpm	9,2	150	125	122	47	286	150	200	178	400	500	703	232	280	132	825	580	300	300	216	22	12	300	285	250	240	210	22	18	8	8	
		11								210			764			160	886		319		254		17	350									
		15								254																							
		18,5								241			846			180	968		332		279												
		22								279																							
		30					303			305			913			200	1035		361		318		19	400									
		37					333			286			983			225	1105		407		356			450									
CS 150-350		18,5	200	150	122	47	292	150	200	241	450	550	852	258	330	180	974	630	338	300	279	22	17	350	340	285	295	240	22	22	12	8	
		22								279																							
		30					309			305			919			200	1041		367		318		19	400									
		37					339			286			989			225	1111		413		356			450									



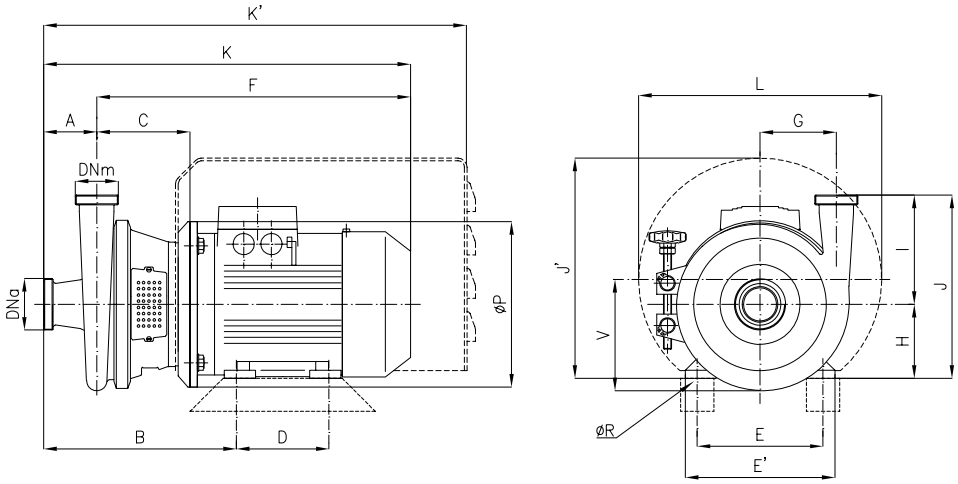
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	ØP	ØR	I	J	J'	L	V	Weight kg
CS 25-145		0,37 0,55 0,75	32	25	75	237 248	117 123	90 100	112 125	132 150	327 357	81	71 80	402 432	534	160 200	7 9	145	216 225	208 217	239	91	
CS 25-175		0,37 0,55 0,75	32	25	65	227 238	117 123	90 100	112 125	132 150	327 357	96	71 80	392 422	525	160 200	7 9	149	220 229	208 217	239	105	
CS 32-110		0,37 0,55 0,75	40	32	70	232 243	117 123	90 100	112 125	132 150	327 357	65	71 80	397 427	530	160 200	7 9	110	181 190	208 217	239	78	
CS 32-145		0,55 0,75	40	32	80	268	138	100	125	150	372	85	80	452	566	220	9	145	225	244	298	95	
CS 32-175		0,55 0,75 1,1	40	32	80	269 275	139	100	125 140	150 165	373 420	95	80 90	453 500	567	220	9 10	150	230 240	244 254	298	109	
CS 32-210		0,75 1,1 1,5 2,2 3	40	32	80	269 275 283	139 140	100 125 140	125 140 160	150 165 196	373 420 452	110	80 90 100	453 500 532	567 637	220 250	9 10 12	165	245 255 265	244 254 264	298	126	
CS 32-260		1,1 1,5 2,2 3 4	50	32	90	309 317 324	163 164	100 125 140	140 160 190	165 196 226	444 476 497	140	90 100 112	534 566 587	601 671	200 250	10 12	172	262 272 284	254 264 276	298	153	
CS 40-145	**1450 rpm**	0,55 0,75	50	40	80	269	139	100	125	150	373	90	80	453	567	220	9	133	213	244	298	103	
CS 40-175		0,75 1,1 1,5	50	40	80	271 277	141	100 125	125 140	150 165	375 422	95	80 90	455 502	569	220	9 10	150	230 240	244 254	298	113	
CS 40-210		0,75 1,1 1,5 2,2	50	40	80	271 277 285	141 142	100 125 140	125 140 160	150 165 196	375 422 454	115	80 90 100	455 502 534	569 639	220 250	9 10 12	165	245 255 265	244 254 264	298	131	
CS 40-260		1,5 2,2 3 4	50	40	100	319 327 334	163 164	125 140	140 160 190	165 196 226	444 476 497	145	90 100 112	544 576 597	611 681	220 250	10 12	172	262 272 284	254 264 276	298	157	
CS 50-145		0,75 1,1 1,5	65	50	80	271 277	141	100 125	125 140	150 165	375 422	95	80 90	454 502	569	220	9 10	145	225 235	244 254	298	118	
CS 50-175		0,55 0,75 1,1 1,5 2,2 3 4	65	50	80	271 277 285 292	141 142	100 125 140	125 140 160 190	150 165 196 226	374 422 454 475	100	80 90 100 112	454 502 534 555	569 639	220 250	9 10 12	150	230 240 250 262	244 254 264 276	298	124	
CS 50-210		1,1 1,5 2,2 3 4	65	50	80	277 285 292	141 142	100 125 140	140 160 190	165 196 226	422 454 475	120	90 100 112	502 534 555	569 639	220 250	10 12	165	255 265 277	254 264 276	298	140	



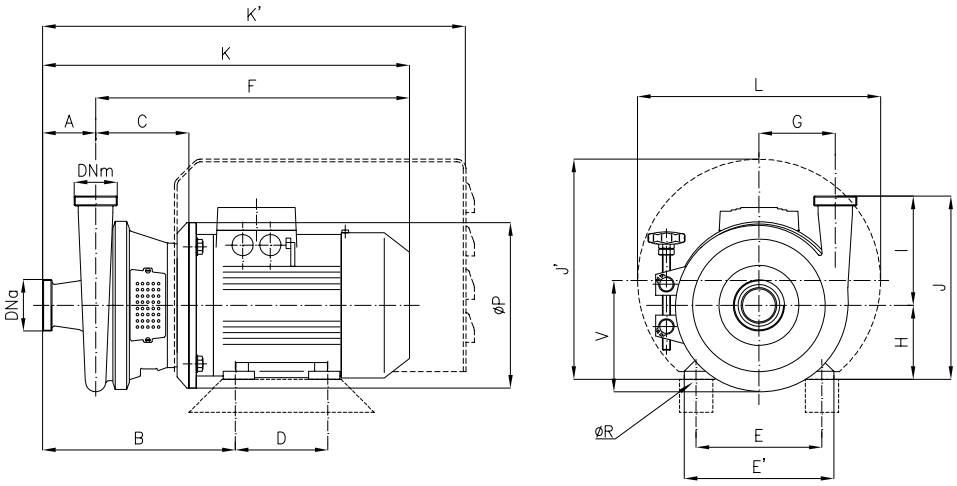
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	ØP	ØR	I	J	J'	L	V	Weight kg
CS 50-260		2,2	65	50	90	319	165	140	160	196	477	145	100	567	672	250	12	175	275	264	298	165	
		3																					
		4				324			190	226	498		112	588					287	276			
CS 65-145		0,55	80	65	79	274	145	100	125	150	379	112	80	458	572	220	9	145	225	244	298	140	
		0,75																					
		1,1																					
		1,5				280		125	140	165	426		90	505			10		235	254			
CS 65-175		1,1	80	65	80	280	144	100	140	165	425	120	90	505	572	220	10	150	240	254	298	148	
		1,5						125															
		2,2				288	145	140	160	196	457		100	537	642	250	12		250	264			
		3																					
		4				295			190	226	478		112	558					262	276			
CS 65-210		1,1	80	65	90	314	168	100	140	165	449	135	90	539	605	220	10	165	255	254	298	160	
		1,5						125															
		2,2				322	169	140	160	196	481		100	571	676	250	12		265	264			59
		3																					
		4				329			190	226	502		112	592					277	276			
CS 65-260		2,2	80	65	100	331	168	140	160	196	480	155	100	580	685	250	12	205	305	264	298	182	
		3																					
		4				338			190	226	501		112	601					317	276			
		5,5				379	190	178	216	256	562		132	662	728	300			337	349	370		
		7,5																					
		9,2													783								
		11				438	230	210	254	300	708		160	808	983	350	15		365	416	430		
CS 80-175	**1450 rpm**	2,2	100	80	100	335	174	140	160	196	486	139	100	586	691	250	12	164	264	264	298	169	
		3																					
		4				343			190	226	507		112	607					276	276			
		5,5				384	195	178	216	256	568		132	668	734	300			296	349	370		
		7,5																					
CS 80-210		2,2	100	80	100	334	171	140	160	196	483	145	100	583	688	250	12	165	265	264	298	179	
		3																					
		4				341			190	226	504		112	604					277	276			
		5,5				382	193	178	216	256	566		132	666	731	300			297	349	370		
		7,5																					
CS 80-260		3	100	80	100	334	171	140	160	196	483	165	100	583	688	250	12	209	309	264	298	196	
		4				341			190	226	504		112	604					321	276			
		5,5				382	193	178	216	256	566		132	666	731	300			341	349	370		
		7,5																					
		9,2									610			710	786								
		11				441	233	210	254	300	711		160	811	986	350	15		369	416	430		
		15						254															
CS 100-210		5,5	125	100	111	399	200	140	216	256	573	161	132	684	750	300	12	214	346	349	370	200	
		7,5						178															
CS 100-260		9,2	125	100	115	399	195	178	216	256	612	186	132	727	803	300	12	216	348	349	370	218	
		11				458	235	210	254	300	713		160	828	1004	350	15		376	416	430		68
		15						254															
		18,5				471		241	279	340	795		180	910	1118				396	512	420		
		22						279															
CS 125-260		9,2	150	125	110	402	203	178	216	276	620	206	132	730	806	300	12	216	348	349	370	242	
		11				462	244	210	254	300	722		160	832	1007	350	15		376	416	430		
		15						254															
		18,5				475		241	279	340	804		180	914	1102				396	512	420		



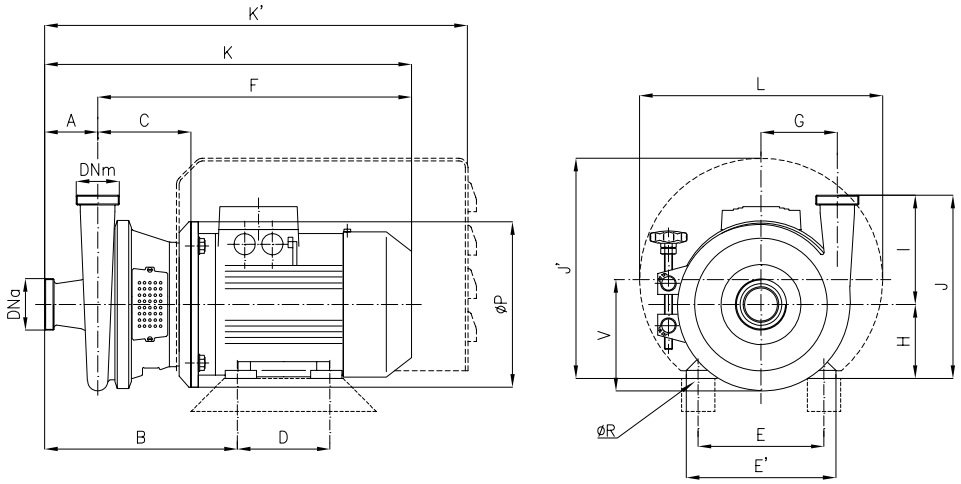
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	ØP	ØR	I	J	J'	L	V	Weight kg
CS 25-145	**2900 rpm**	0,55 0,75 1,1 1,5 2,2	32	25	75	237 248 254	117 123	90 100 125	112 125 140	132 150 165	327 357 404	81	71 80 90	402 432 479	534	160 200	7 9 10	145	216 225 235	208 217 227	239	91	
CS 25-175		0,75 1,1 1,5 2,2 3 4	32	25	65	238 244 266 273	123 138	100 125 140	125 140 160 190	150 165 196 226	357 404 458 471	96	80 90 100 112	422 469 523 536	514 525 601	200 250	9 10 12	149	229 239 249 261	217 227 271 283	239 298	105	
CS 32-110		0,55 0,75 1,1 1,5	40	32	70	232 243 249	117 123	90 100	112 125 140	132 150 165	327 357 404	65	71 80 90	397 427 474	457 530	160 200	7 9 10	110	181 190 200	208 217 227	239	78	
CS 32-145		0,75 1,1 1,5 2,2 3 4	40	32	80	268 274 282 289	138 139	100 125 140	125 140 160 190	150 165 196 226	372 419 451 473	85	80 90 100 112	452 499 531 553	566 636	220 250	9 10 12	145	225 235 245 257	244 254 264 276	298	95	
CS 32-175		1,5 2,2 3 4	40	32	80	275 282 290	139 140	100 125 140	140 160 190	165 196 226	420 452 473	95	90 100 112	500 532 553	566 637	220 250	10 12	150	240 250 262	254 264 276	298	109	
CS 32-210		3 4 5,5 7,5 9,2 11	40	32	80	283 290 330 394	140 161 206	140 178 210	160 190 216 254	196 226 256 300	452 473 534 578 684	110	100 112 132 160	532 553 614 658 764	637 680 735 935	250 300 350	12 15	165	265 277 297 325	264 276 349 416	298 370 430	126	
CS 32-260		5,5 7,5 9,2 11 15	50	32	90	364 423	185 225	140 178 210	216 254	256 300	558 602 703	140	132 160	648 692 793	714 967	300 350	12 15	172	304 332	349 420	370 430	153	
CS 40-145		1,5 2,2 3 4	50	40	80	275 283 289	139 140	100 125 140	140 160 190	165 196 226	420 452 473	90	90 100 112	500 532 553	567 637	220 250	10 12	133	223 233 245	254 264 276	298	103	
CS 40-175		2,2 3 4 5,5 7,5 9,2 11	50	40	80	277 284 291 333 396	141 142 164 208	125 140 178 210	140 160 190 216 254	165 196 226 256 300	422 454 475 537 581 686	95	90 100 112 132 160	502 534 555 617 661 766	569 639 682 737 937	220 250 300 350	10 12 15	150	240 250 262 282 310	254 264 276 349 416	298 370 430	113	



Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

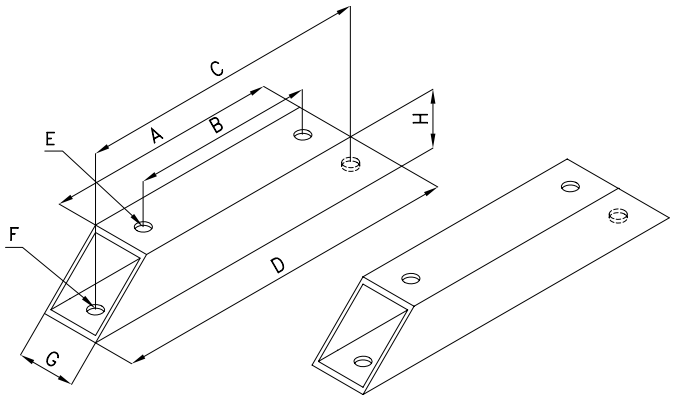
Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	ØP	ØR	I	J	J'	L	V	Weight kg
CS 40-210	**2900 rpm**	3	50	40	80	285	142	140	160	196	455	115	100	535	639	250	12	165	265	264	298	131	
		4				292			190	226	475		112	555					277	276			
		5,5				333	164		216	256	537		132	617	682	300			297	349	370		
		7,5																					
		9,2						178			581			661	737								
		11				396	208	210	254	300	686		160	766	937	350	15		325	416	430		
		15						254															
CS 40-260		7,5	50	40	100	374	185	178	216	256	558	145	132	658	724	300	12	172	304	349	370	157	
		9,2									602			702	779								
		11				434	226	210	254	300	704		160	804	978	350	15		332	420	430		
		15																					
		18,5						254															
		22				447		241	279	340	786		180	886	1094				352	512	420		
CS 50-145		1,5	65	50	80	277	141	100	140	165	422	95	90	502	569	220	10	145	235	254	298	118	
		2,2						125															
		3				285	142	140	160	196	454		100	534	639	250	12		245	264			
		4				292			190	226	475		112	555					257	276			
		5,5				333	164		216	256	537		132	617	682	300			277	349	370		
		7,5																					
CS 50-175		3	65	50	80	285	142	140	160	196	454	100	100	534	639	250	12	150	250	264	298	124	
		4				292			190	226	475		112	556					262	276			
		5,5				333	164		216	256	537		132	617	682	300			282	349	370		
		7,5																					
		9,2						178			581			661	737								
		11				396	208	210	254	300	686		160	766	937	350	15		310	416	430		
		15						254															
CS 50-210		5,5	65	50	80	333	164	140	216	256	537	120	132	617	682	300	12	165	297	349	370	140	
		7,5																					
		9,2						178			581			661	737								
		11				396	208	210	254	300	686		160	766	937	350	15		325	416	430		
		15																					
		18,5						254															
		22				424	223	241	279	340	783		180	863	1072				345	512	420		
CS 50-260		15	65	50	90	426	228	210	254	300	706	145	160	796	970	350	15	175	335	420	430	165	
		18,5						254															
		22				439		241	279	340	788		180	878	1087				355	512	420		
CS 65-145		3	80	65	79	288	146	140	160	196	458	112	100	537	642	250	12	145	245	264	298	140	
		4				295			190	226	479		112	558					257	276			
		5,5				336	168		216	256	541		132	620	685	300			277	349	370		
		7,5																					
		9,2						178			585			664	740								
		11				399	212	210	254	300	690		160	769	940	350	15		305	416	430		
CS 65-175		5,5	80	65	80	336	167	140	216	256	540	120	132	620	685	300	12	150	282	349	370	148	
		7,5																					
		9,2						178			584			664	740								
		11				399	211	210	254	300	689		160	769	940	350	15		310	416	430		
		15																					
		18,5						254															
		22				425	224	241	279	340	784		180	864	1073				330	512	420		



Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

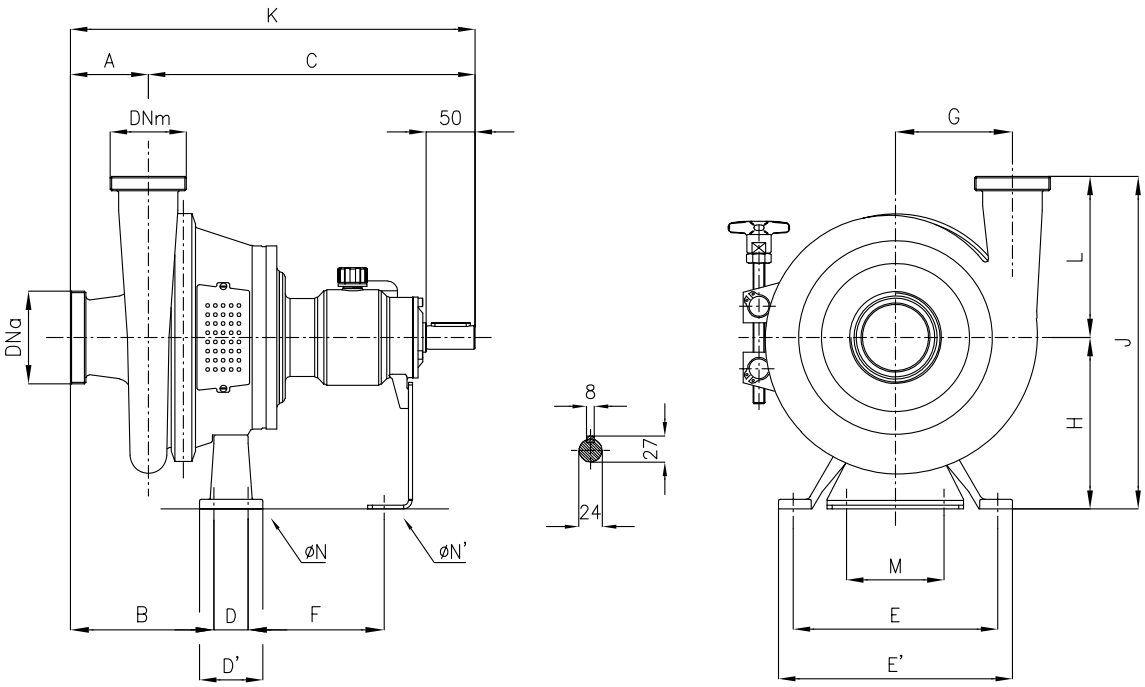
Pumps		kW	DNa	DNm	A	B	C	D	E	E'	F	G	H	K	K'	ØP	ØR	I	J	J'	L	V	Weight kg
CS 65-210	**2900 rpm**	11	80	65	90	429	231	210	254	300	709	135	160	799	974	350	14	165	325	420	430	160	
		15																					
		18,5						254															
		22				442		241	279	340	791		180	881	1090		15		345	512	420		200
CS 65-260		15	80	65	100	438	230	210	254	300	708	155	160	808	983	350	14	205	365	420	430	182	
		18,5						254															
		22				451		241	279	340	790		180	890	1099		15		385	512	420		
CS 80-175		11	100	80	100	444	235	210	254	300	714	139	160	814	989	350	14	164	324	416	430	169	
		15																					
		18,5						254															
		22				457		241	279	340	795		180	895	1105		15		344	512	420		
CS 80-210		15	100	80	100	441	233	210	254	300	711	145	160	811	986	350	14	164	324	420	430	179	
		18,5						254															
		22				454		241	279	340	793		180	893	1102		15		344	512	420		
CS 100-210		22	125	100	110	471	240	241	279	340	800	161	180	910	1120	350	15	214	394	512	420	200	

ADDITIONAL MOTOR SHIMS



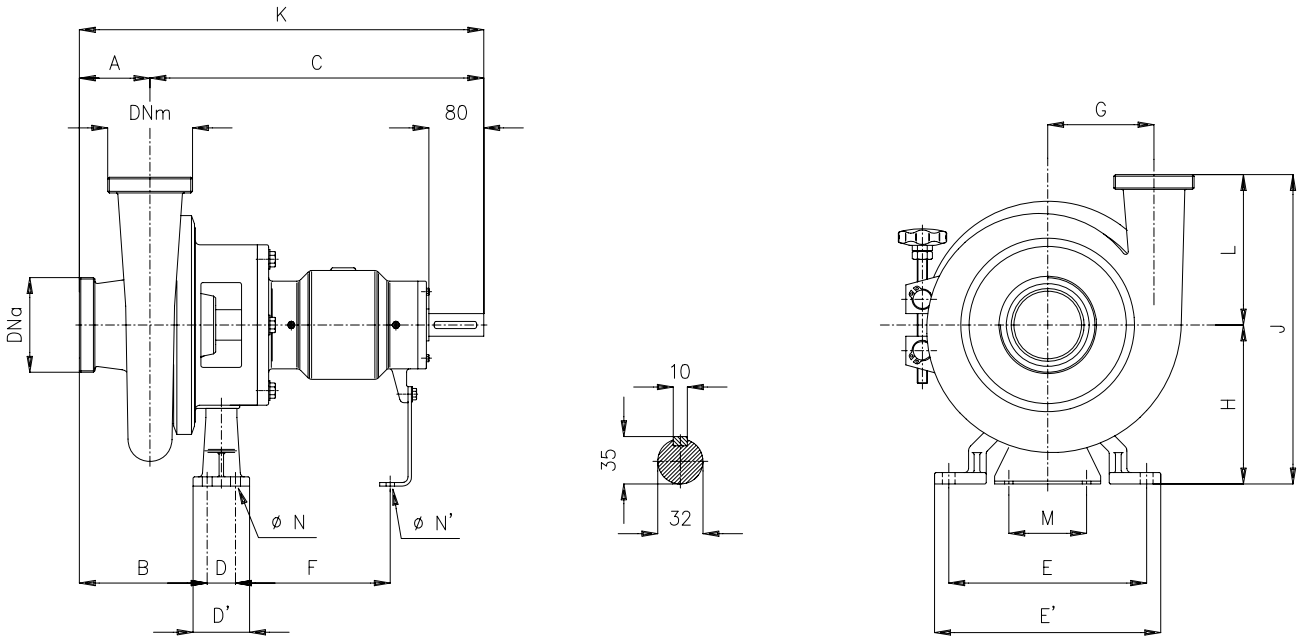
Upon request, they are available where the pump projects beyond the motor feet.

Frame (IEC - DIN)	A	B	C	D	E	F	G	H
71	110	90	150	190	10	10	40	40
80	130	100	170	210	10	10	40	40
90 S	160	100	200	240	10	10	40	40
90 L		125	200	240	10	10	40	40
100 L	180	140	230	280	12	12	50	50
112 M	180	140	230	280	12	12	50	50
132 M	226	140	266	346	12	12	60	60
132 L	226	178	266	346	12	12	60	60
160 M	310	210	330	400	14	14	50	50
160 L	310	254	330	400	14	14	50	50
180 M/L	328	241/279	387	448	15	15	60	60



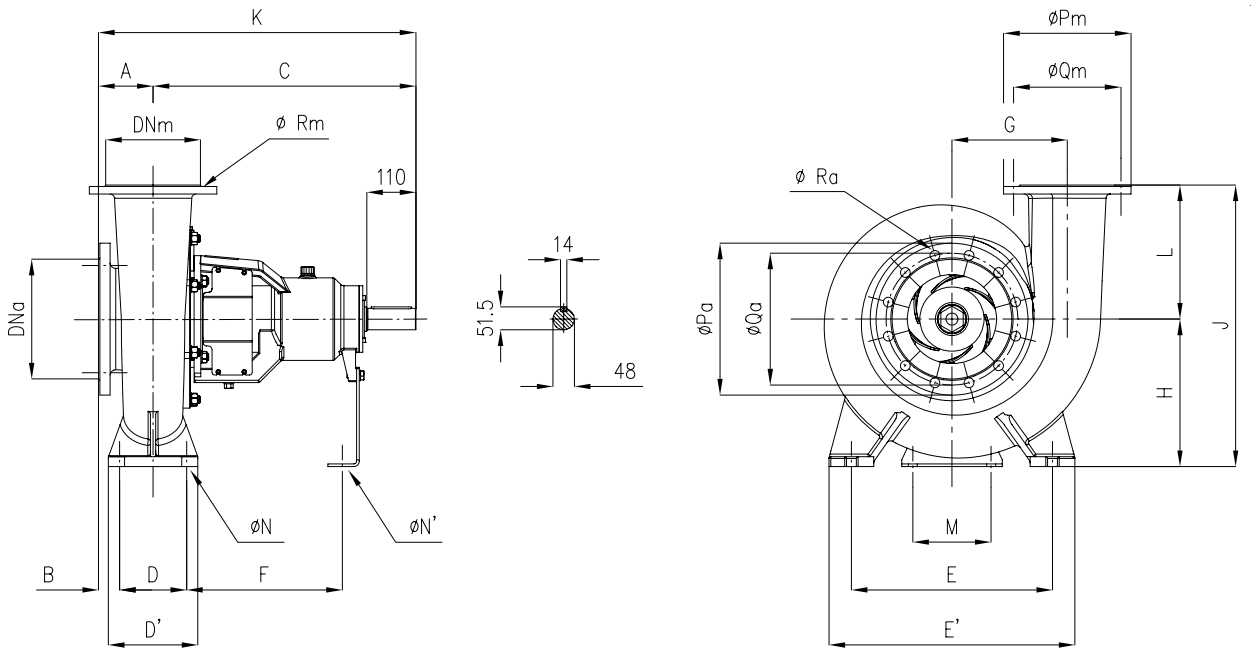
Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps	DNa	DNm	A	B	C	D	D'	E	E'	F	G	H	K	J	L	M	N	N'	Weight kg
CSK 32-145	40	32	80	135	335	60	85	208	240	128	85	176	415	321	145	100	11	10	
CSK 32-175	40	32	80	136	334	60	85	208	240	127	95	176	414	326	150	100	11	10	
CSK 32-210	40	32	80	136	335	60	85	208	240	127	110	176	415	341	165	100	11	10	
CSK 40-145	50	40	80	136	335	60	85	208	240	128	90	176	415	309	133	100	11	10	
CSK 40-175	50	40	80	138	337	60	85	208	240	126	95	176	417	326	150	100	11	10	
CSK 40-210	50	40	80	138	337	60	85	208	240	126	115	176	417	341	165	100	11	10	
CSK 50-145	65	50	80	138	337	60	85	208	240	127	95	176	417	321	145	100	11	10	
CSK 50-175	65	50	80	139	337	60	85	208	240	126	100	176	417	326	150	100	11	10	
CSK 50-210	65	50	80	138	337	60	85	208	240	126	120	176	417	341	165	100	11	10	
CSK 65-145	80	65	79	141	341	60	85	208	240	128	112	176	420	321	145	100	11	10	
CSK 65-175	80	65	80	142	340	60	85	208	240	127	120	176	420	326	150	100	11	10	



Dimensions not binding - DN = DIN 11851 male threaded connections with standard IEC/EN motors

Pumps	DNa	DNm	A	B	C	D	D'	E	E'	F	G	H	K	J	L	M	N	N'	Weight kg
CSK 65-210	80	65	90	149	474	80	106	300	340	202	135	225	564	390	165	110	14	12	
CSK 65-260	80	65	100	158	473	80	106	300	340	202	155	225	573	430	205	110	14	12	
CSK 80-175	100	80	100	166	479	80	106	300	340	200	139	217	579	381	164	110	14	12	
CSK 80-210	100	80	100	161	476	80	106	300	340	202	145	225	576	389	164	110	14	12	
CSK 80-260	100	80	100	161	476	80	106	300	340	202	165	225	576	424	209	110	14	12	
CSK 100-210	125	100	111	178	483	80	106	300	340	202	161	225	593	439	214	110	14	12	
CSK 100-260	125	100	115	178	478	80	106	300	340	202	186	225	593	441	216	110	14	12	
CSK 125-260	150	125	110	182	487	80	106	300	340	202	206	225	597	441	216	110	14	12	



Dimensions not binding - DN = Flanges EN 1092-1 PN 16

Pumps	DNa	DNm	A	B	C	D	D'	E	E'	F	G	H	K	J	L	M	N	N'	Ø Pm	Ø Pa	Ø Qm	Ø Qa	Ø Ra	Ø Rm	no. holes a	no. holes m	Weight kg
CSK 125-350	150	125	122	47	586	150	200	400	500	346	232	280	708	580	300	110	22	14	250	285	210	240	22	18	8	8	
CSK 150-350	200	150	122	47	580	150	200	450	550	348	258	330	702	630	300	175	22	20	285	340	240	295	22	22	12	8	

CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

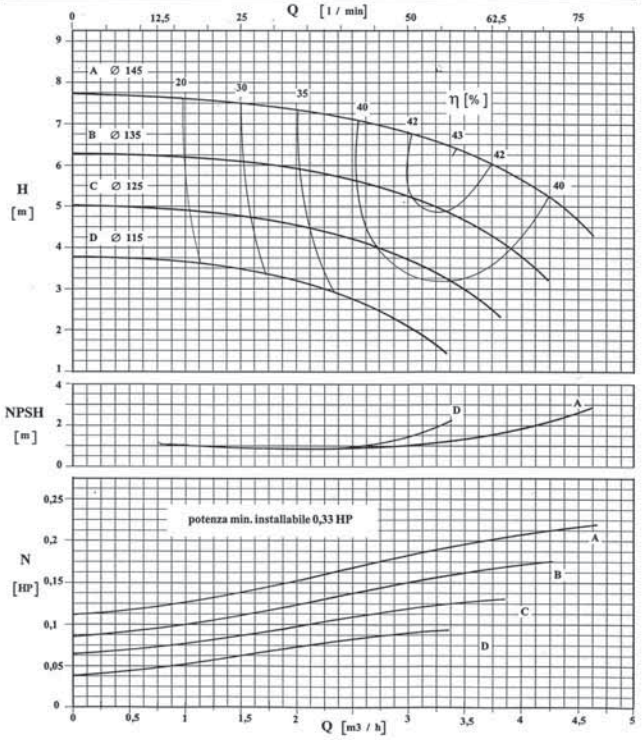
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type*	CS 25 - 145	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

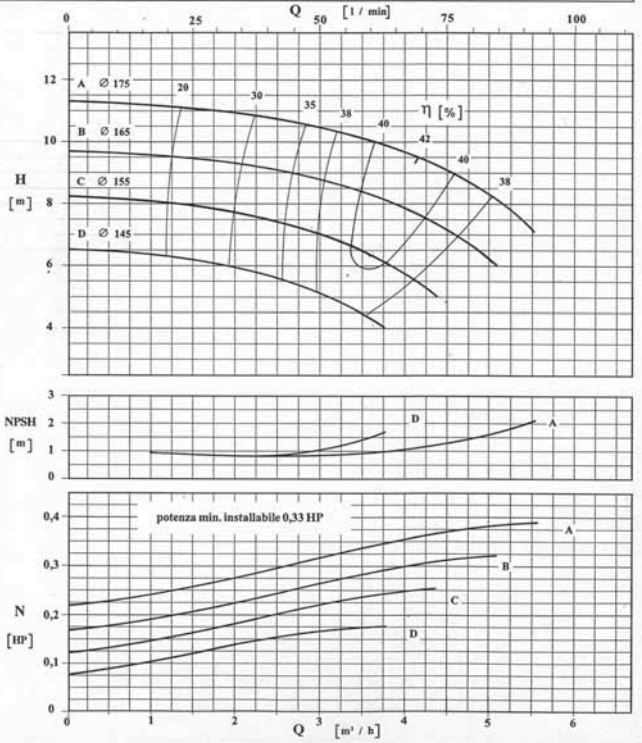


POMPA TIPO *Pump type*	CS 25 - 175	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

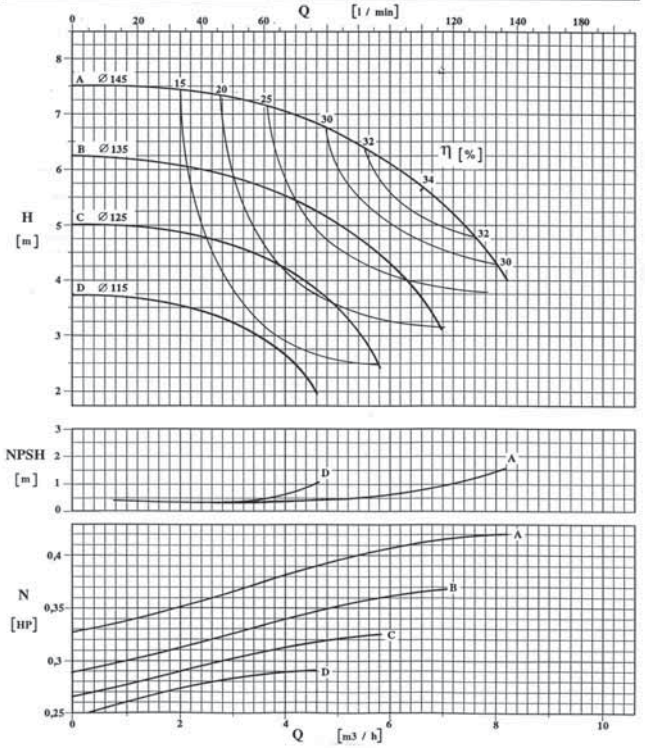


POMPA TIPO *Pump type*	CS-CSA 32 - 145	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

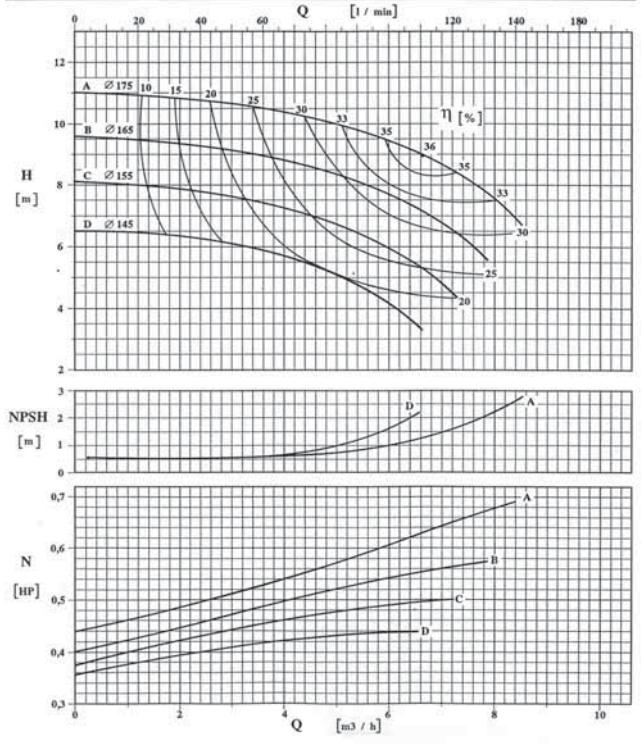


POMPA TIPO *Pump type*	CS-CSA 32 - 175	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE Serie CS-CSA
PERFORMANCE CURVES *CS-CSA Series*

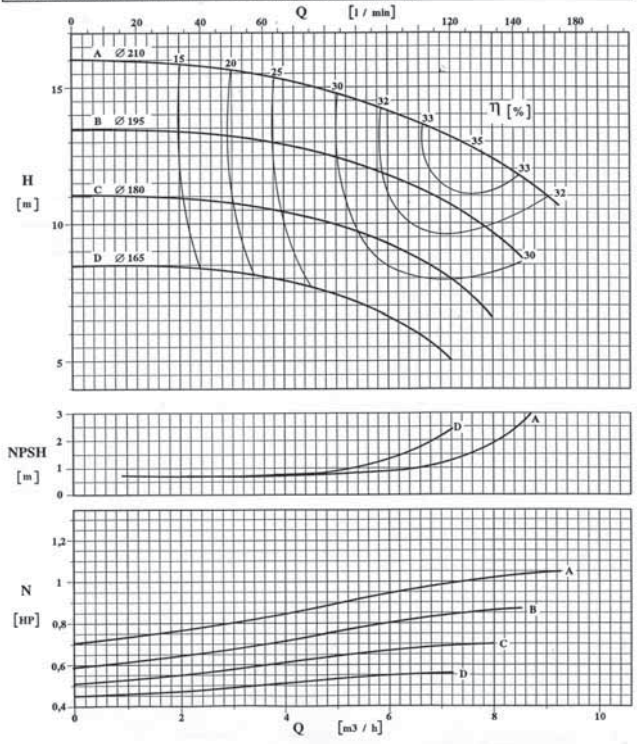
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type* CS-CSA 32 - 210 | n 1450 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

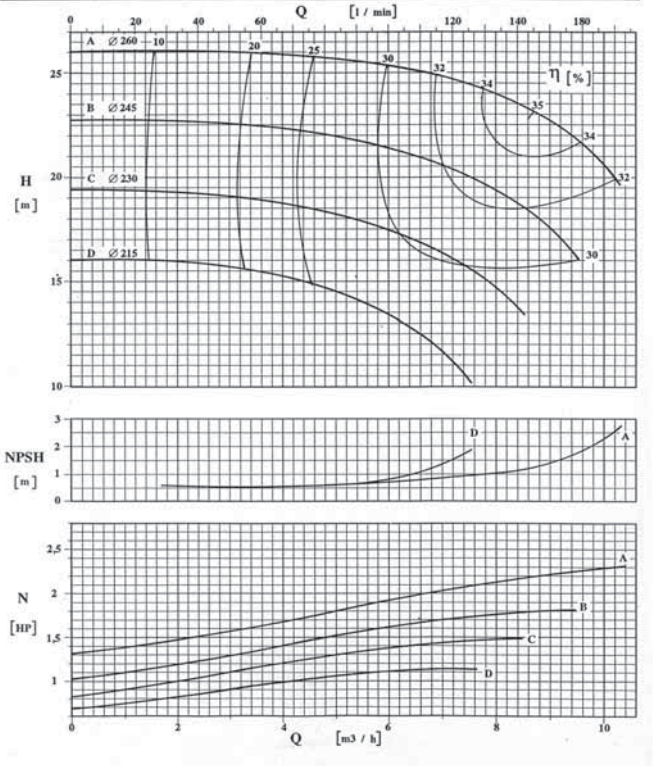


POMPA TIPO *Pump type* CS-CSA 32 - 260 | n 1450 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	3,5 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

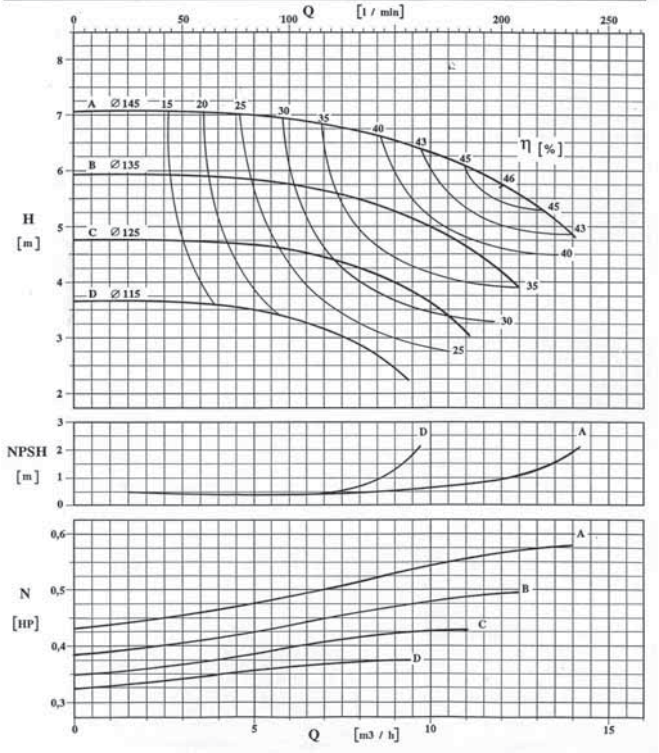


POMPA TIPO *Pump type* CS-CSA 40 - 145 | n 1450 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

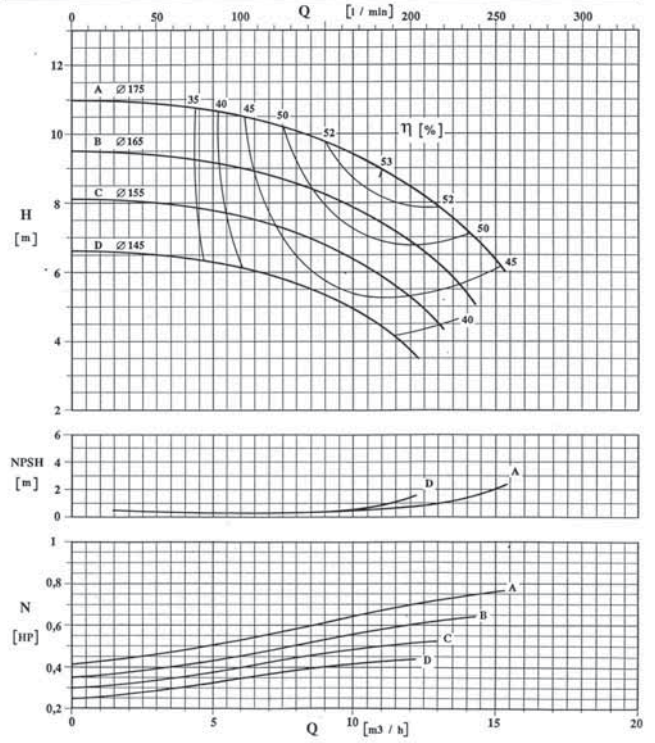


POMPA TIPO *Pump type* CS-CSA 40 - 175 | n 1450 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

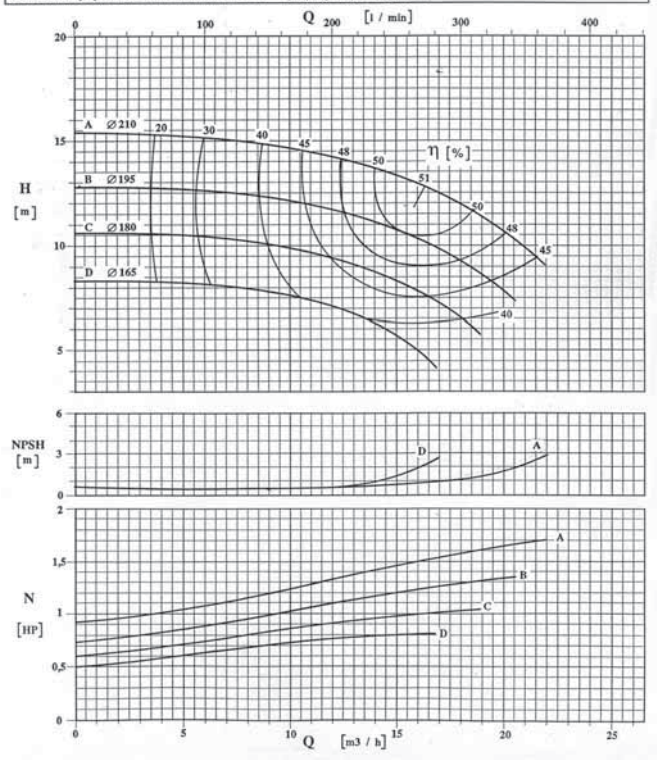
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type* **CS-CSA 40 - 210** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

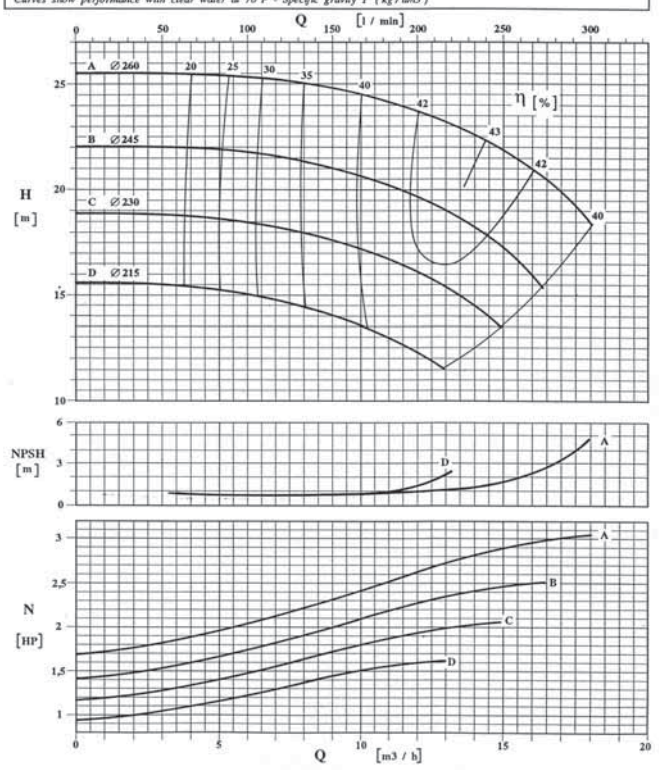


POMPA TIPO *Pump type* **CS-CSA 40 - 260** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	5 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

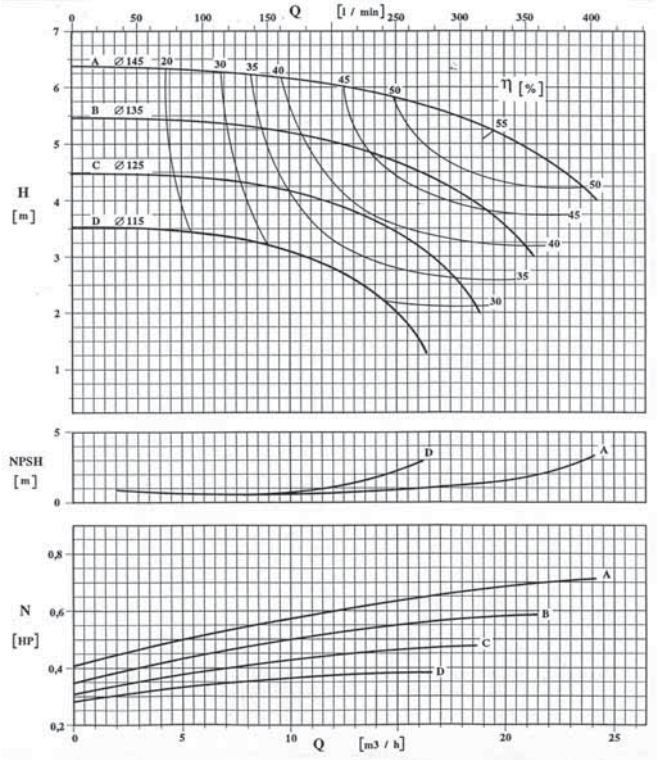


POMPA TIPO *Pump type* **CS-CSA 50 - 145** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	10 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

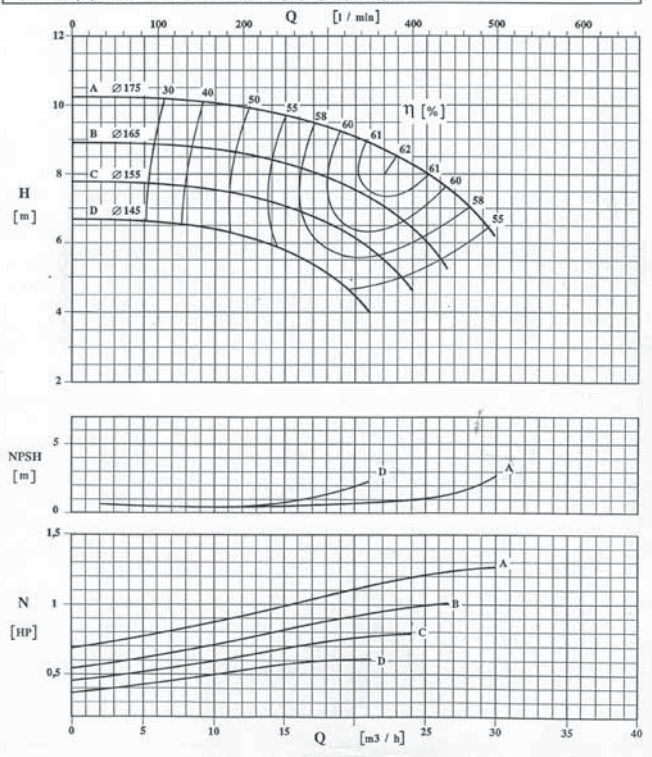


POMPA TIPO *Pump type* **CS-CSA 50 - 175** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

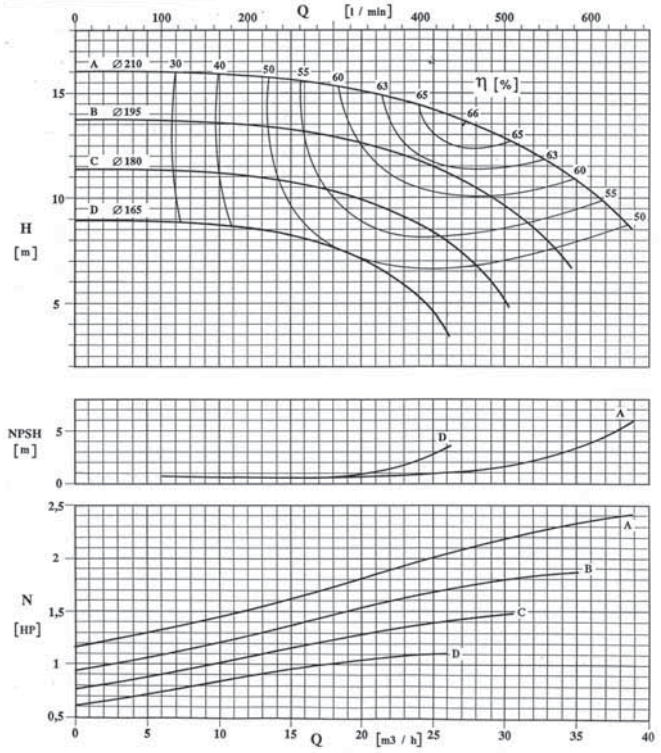
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type* **CS-CSA 50 - 210** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

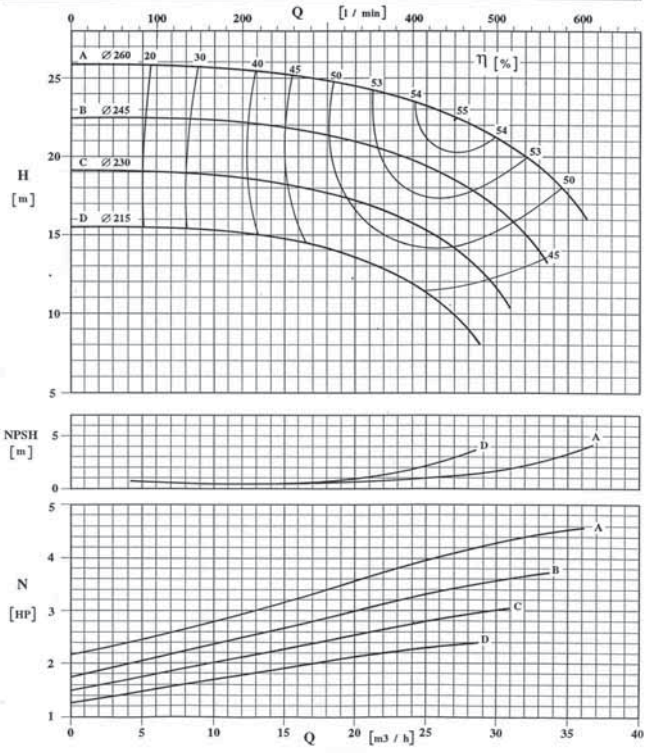


POMPA TIPO *Pump type* **CS-CSA 50 - 260** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	6 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

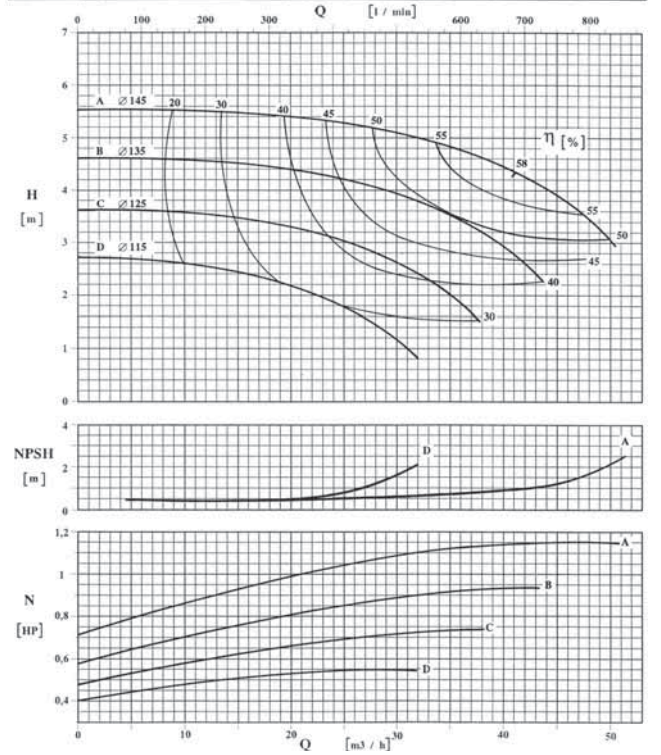


POMPA TIPO *Pump type* **CS-CSA 65 - 145** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	18 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

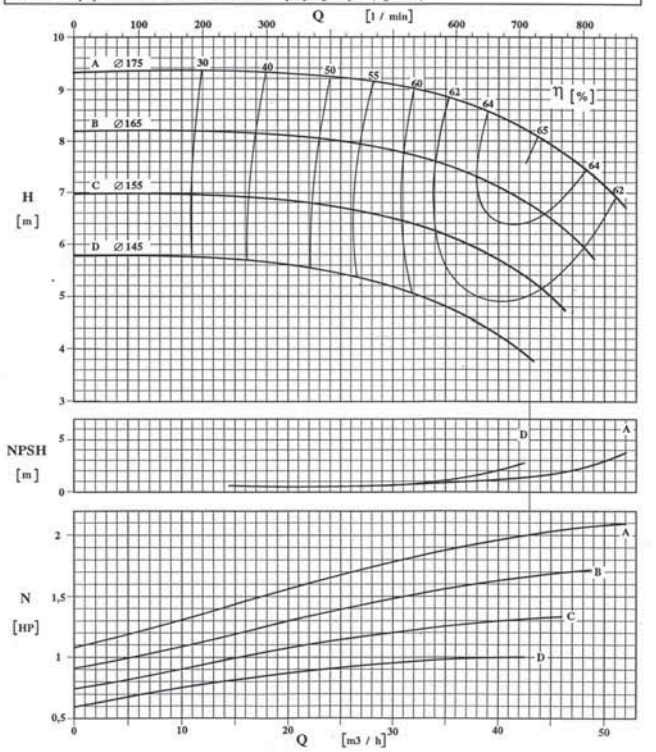


POMPA TIPO *Pump type* **CS-CSA 65 - 175** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	16 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

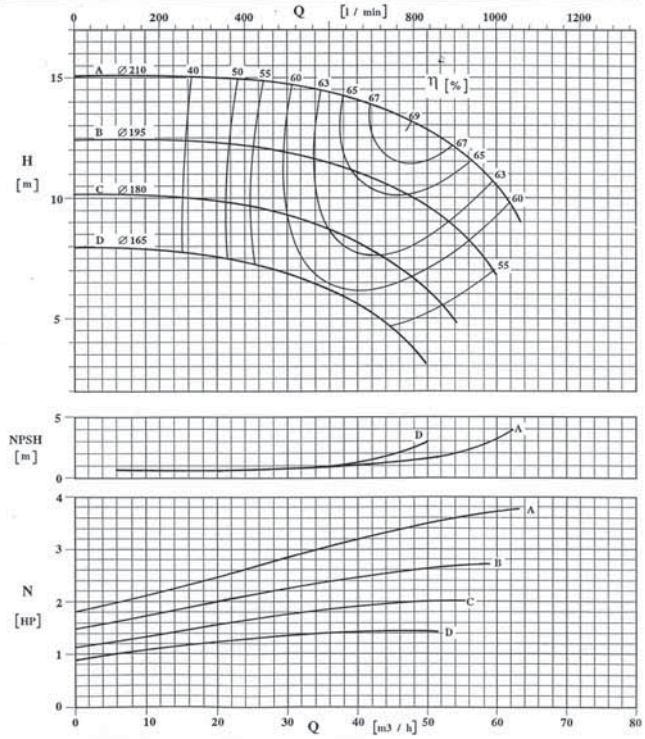
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type*	CS-CSA 65 - 210	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	12 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

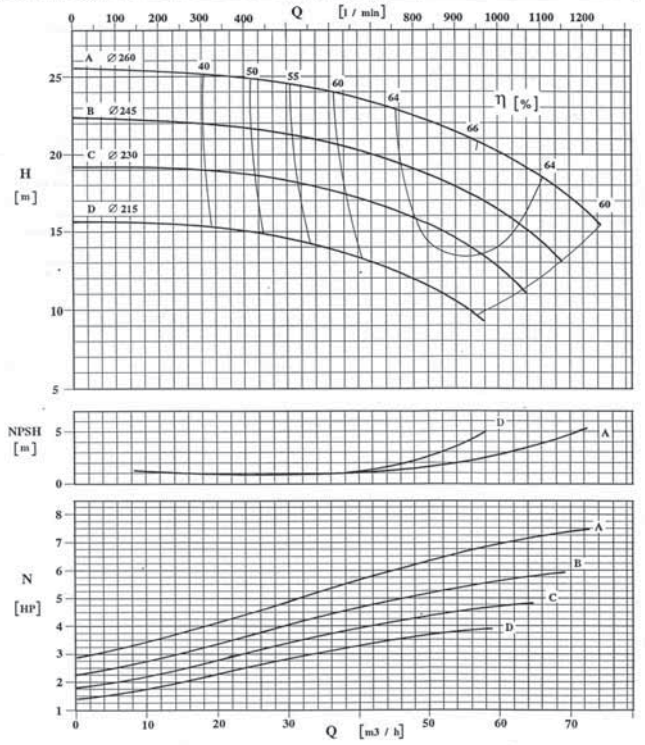


POMPA TIPO *Pump type*	CS-CSA 65 - 260	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	10.5 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

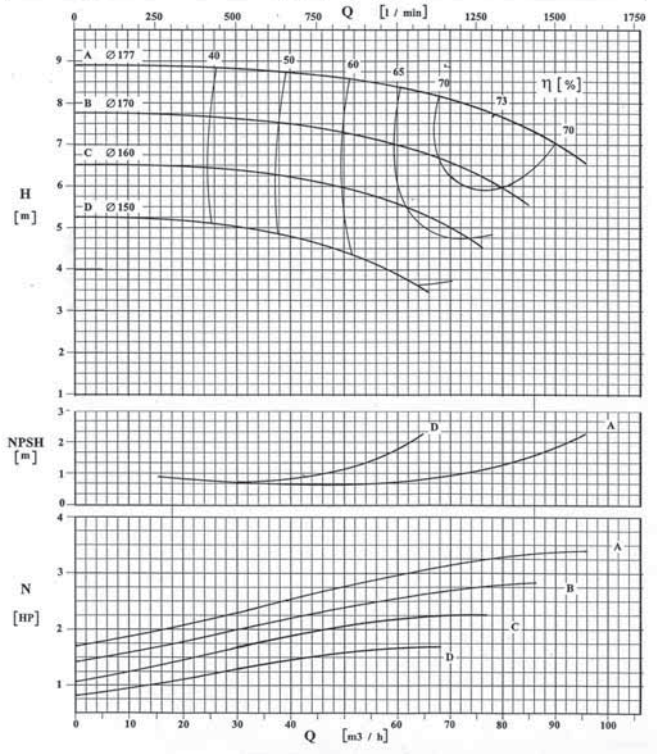


POMPA TIPO *Pump type*	CS-CSA 80 - 175	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	22 mm	177 mm	150 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

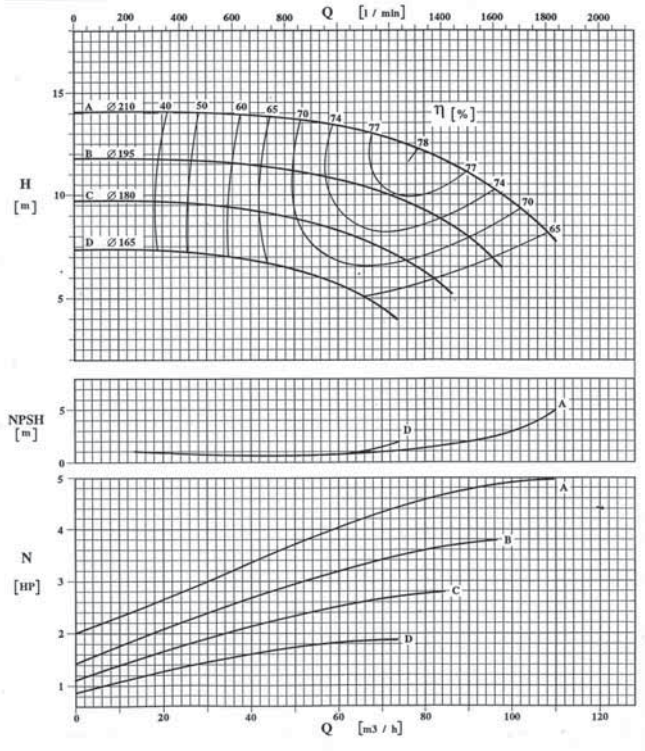


POMPA TIPO *Pump type*	CS-CSA 80 - 210	n	1450 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	18 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE Serie CS-CSA
PERFORMANCE CURVES *CS-CSA Series*

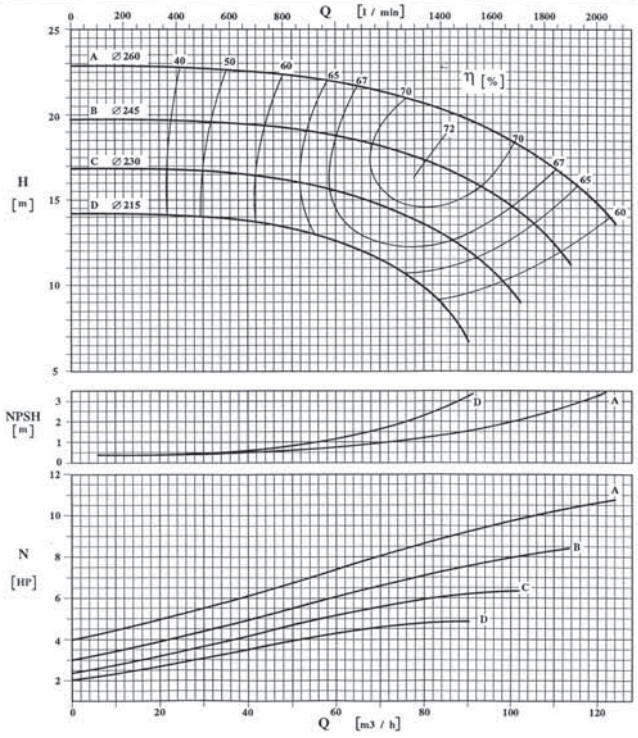
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type* **CS-CSA 80 - 260** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	14 mm	260 mm	200 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

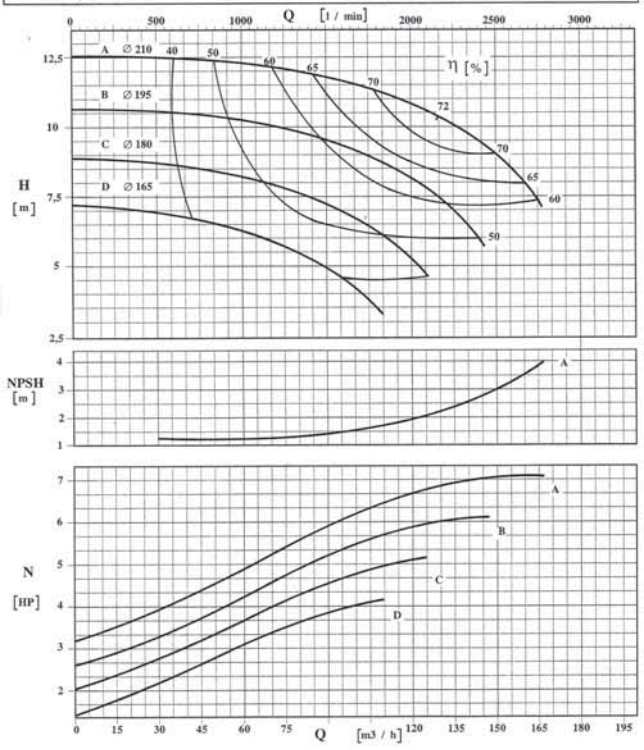


POMPA TIPO *Pump type* **CS - CSA 100 - 210** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 125
APERTA	6	15 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 100

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

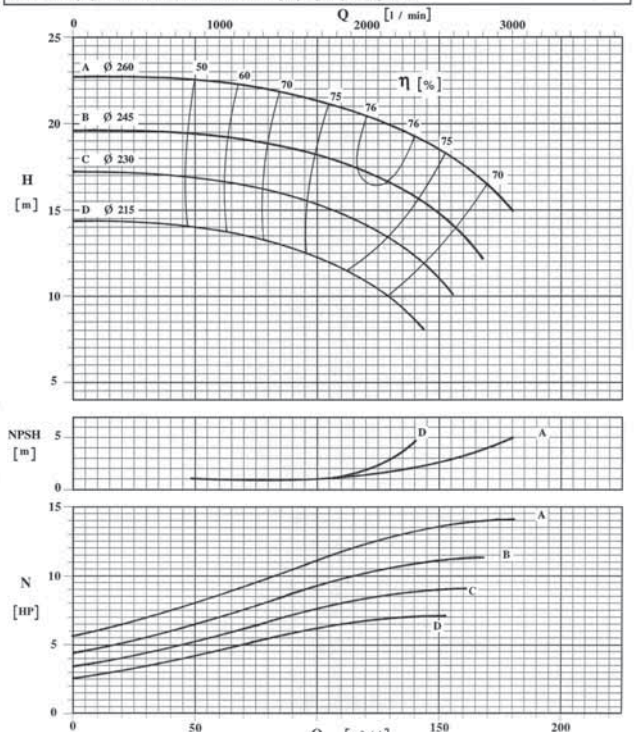


POMPA TIPO *Pump type* **CS-CSA 100 - 260** | n **1450** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 125
APERTA	6	25 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 100

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

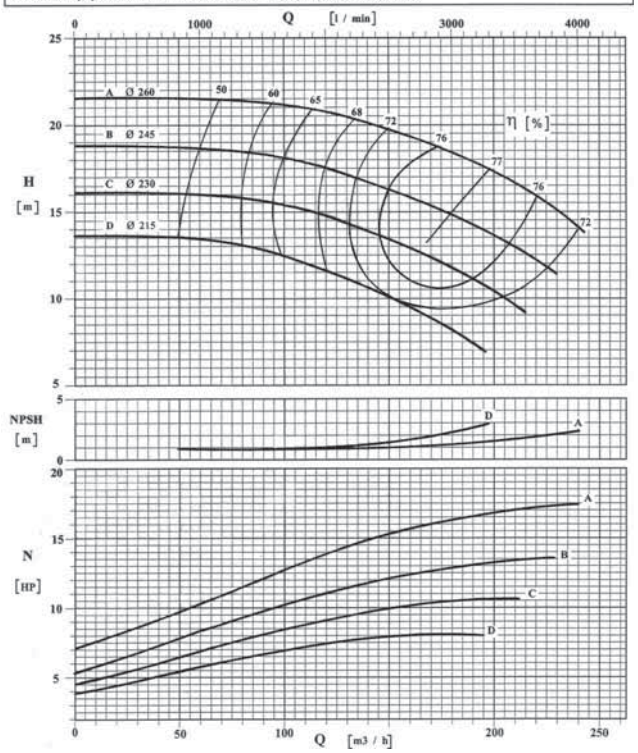


POMPA TIPO *Pump type* **CS 125 - 260** | n **1470** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 150
APERTA	6	32 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 125

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CSK
PERFORMANCE CURVES — *CSK Series*

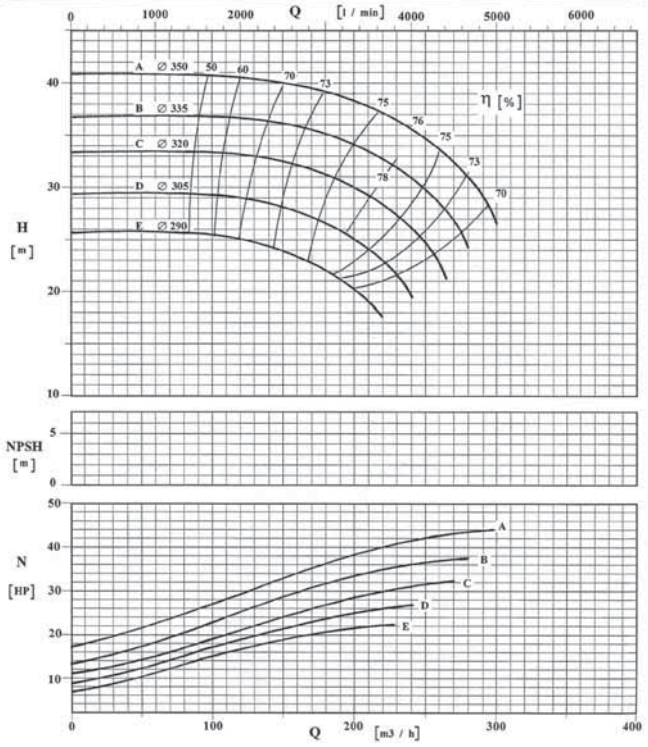
1450 giri/min - ***1450 rpm***

POMPA TIPO *Pump type*	CSK 125 - 350	n	1470 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Flange tipo *Flanges type*	Bocca aspir. *Suction port*	DN 150
APERTA	6	18 mm	350 mm	285 mm	UNI PN 16	Bocca mand. *Discharge port*	DN 125

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

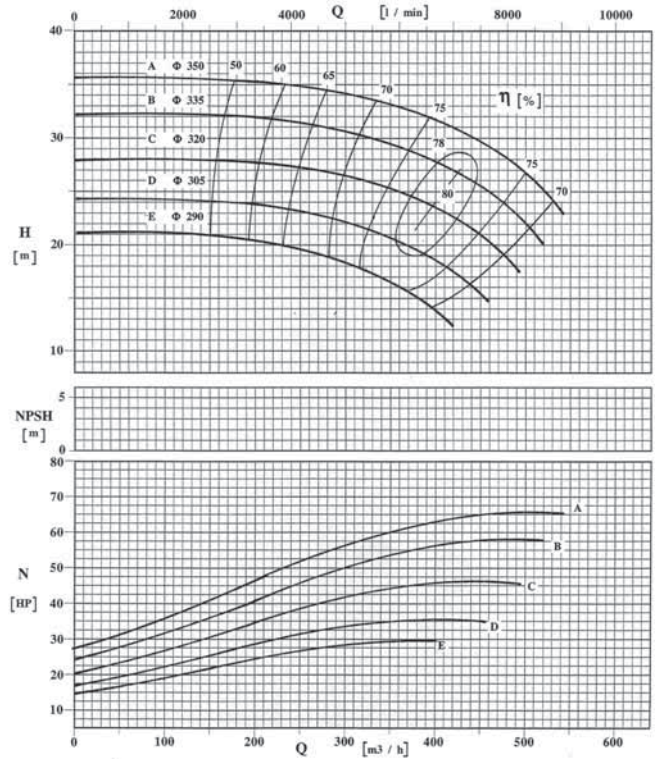


POMPA TIPO *Pump type*	CSK 150 - 350	n	1450 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Φ max *max. diameter*	Φ min *min. diameter*	Flange tipo *Flanges type*	Bocca aspir. *Suction port*	DN 200
APERTA	6	24 mm	350 mm	285 mm	UNI PN 16	Bocca mand. *Discharge port*	DN 150

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE Serie CS-CSA
PERFORMANCE CURVES *CS-CSA Series*

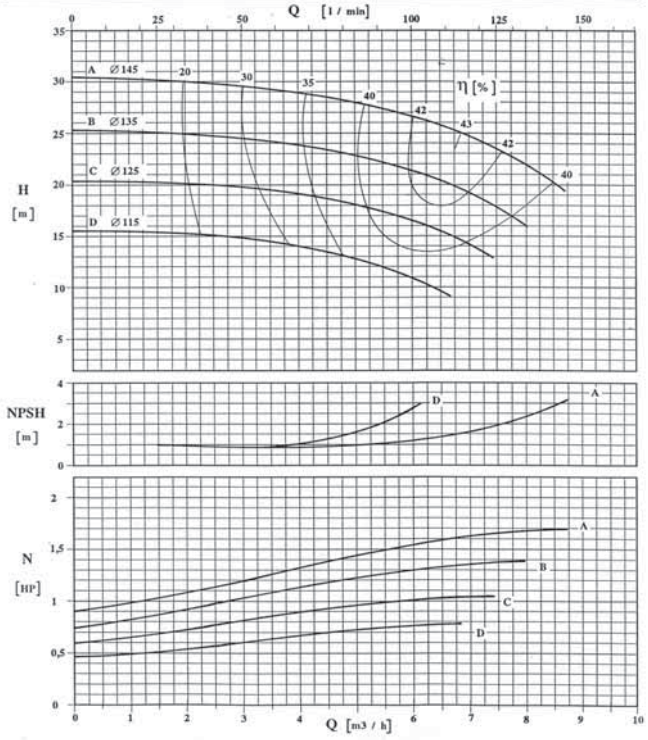
2900 giri/min - ***2900 rpm***

POMPA TIPO *Pump type* **CS 25 - 145** n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

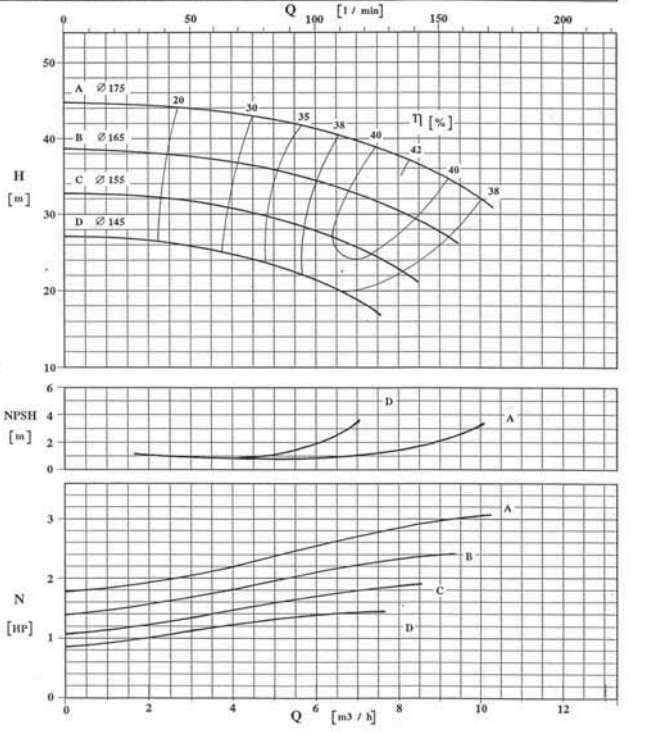


POMPA TIPO *Pump type* **CS 25 - 175** n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

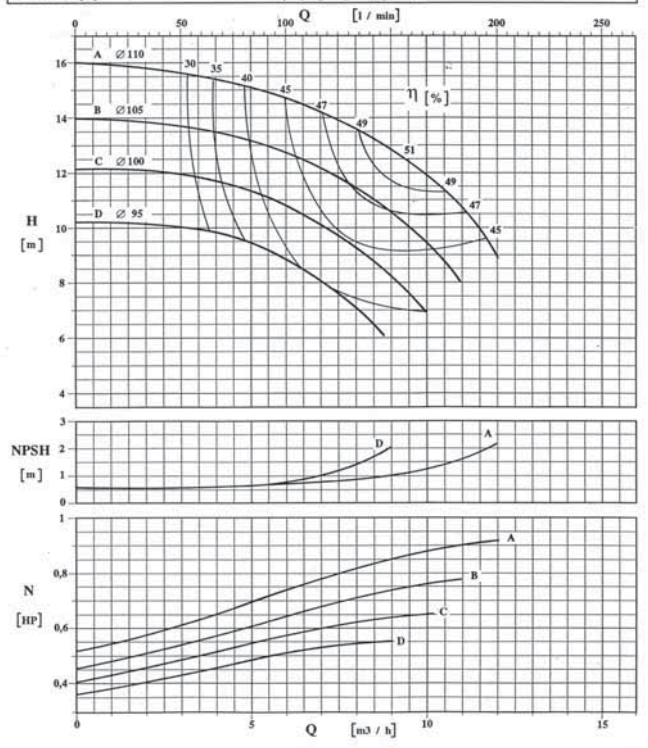


POMPA TIPO *Pump type* **CS 32-110** n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	110 mm	95 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

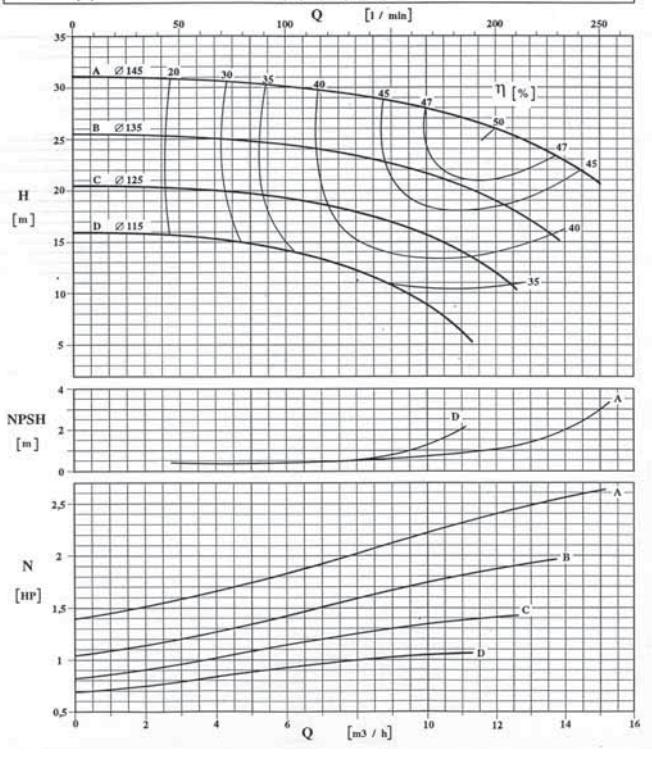


POMPA TIPO *Pump type* **CS-CSA 32 - 145** n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

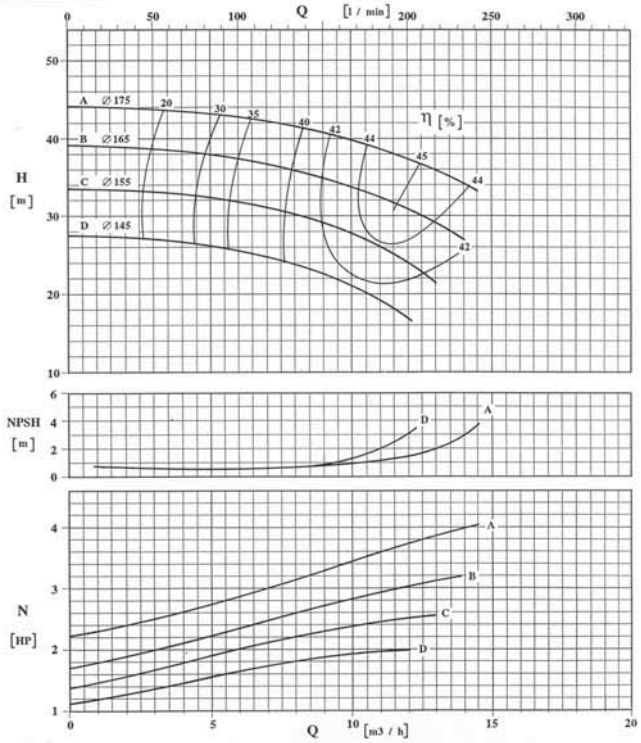
2900 giri/min - ***2900 rpm***

POMPA TIPO *Pump type* **CS-CSA 32 - 175** — n 2900 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

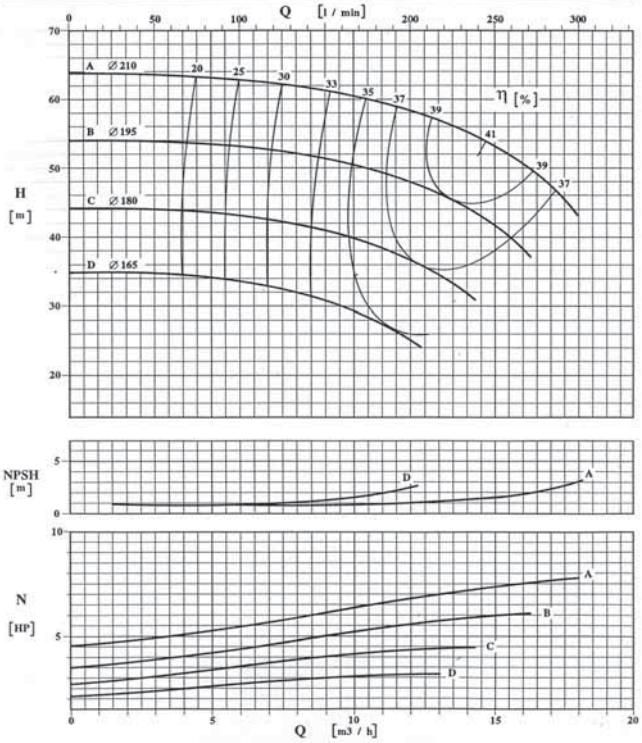


POMPA TIPO *Pump type* **CS-CSA 32 - 210** — n 2900 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

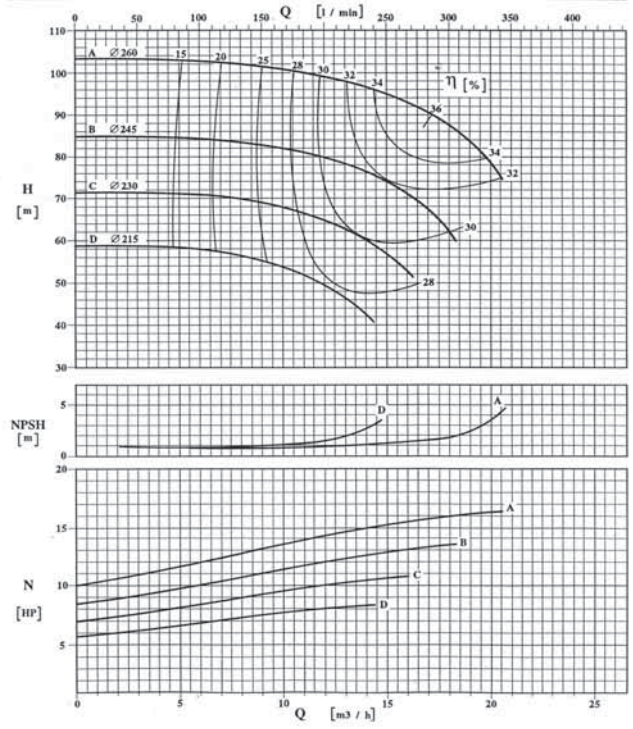


POMPA TIPO *Pump type* **CS-CSA 32 - 260** — n 2950 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	3,5 mm	260 mm	200 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

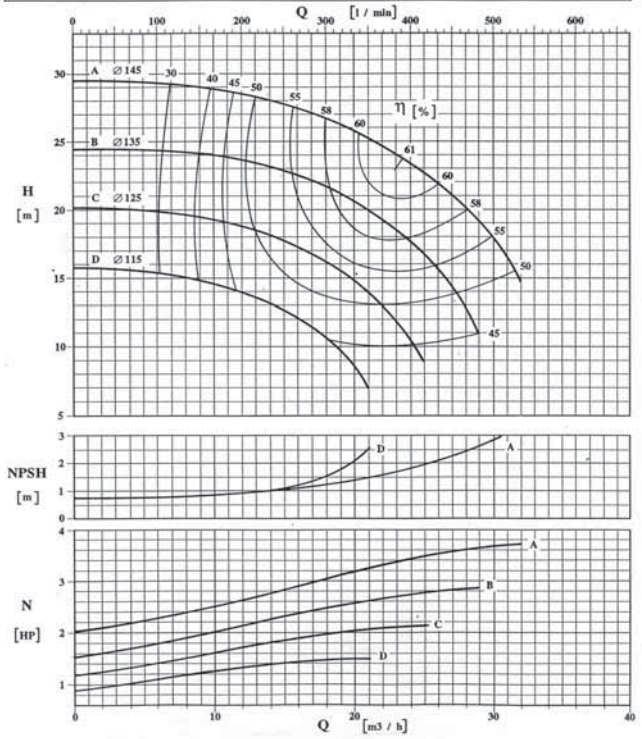


POMPA TIPO *Pump type* **CS-CSA 40 - 145** — n 2900 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	11 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

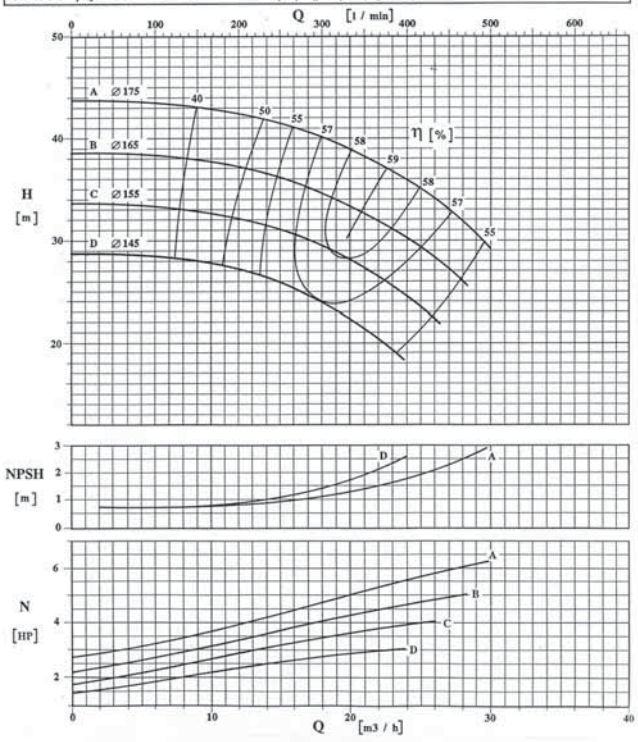
2900 giri/min - ***2900 rpm***

POMPA TIPO *Pump type* **CS-CSA 40 - 175** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	11 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

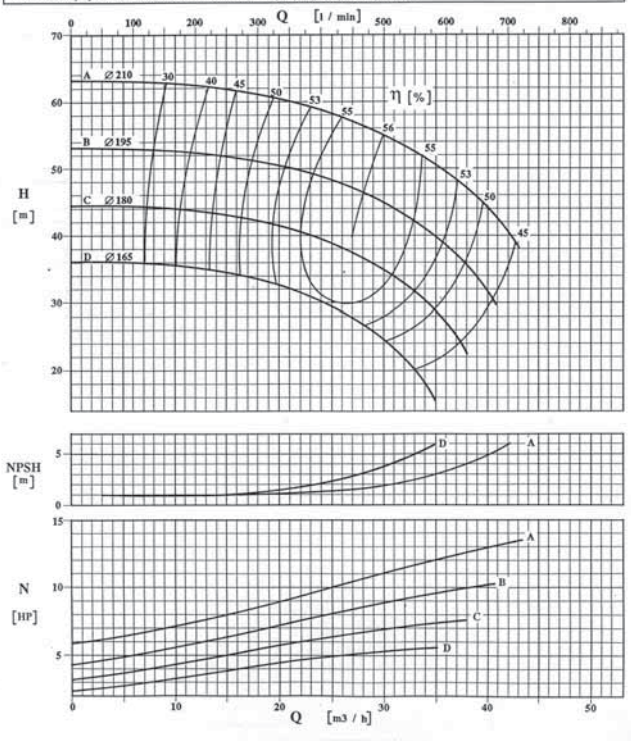


POMPA TIPO *Pump type* **CS-CSA 40 - 210** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

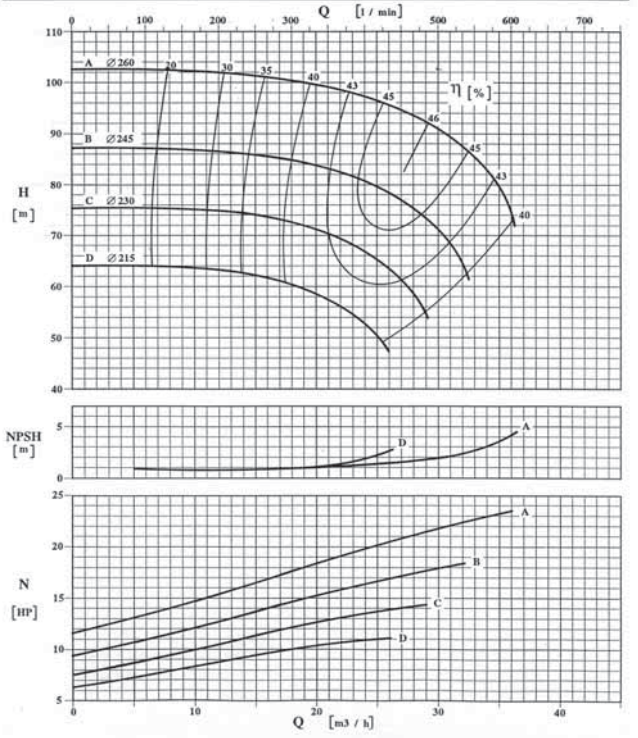


POMPA TIPO *Pump type* **CS-CSA 40 - 260** | n **2950** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	5 mm	260 mm	200 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

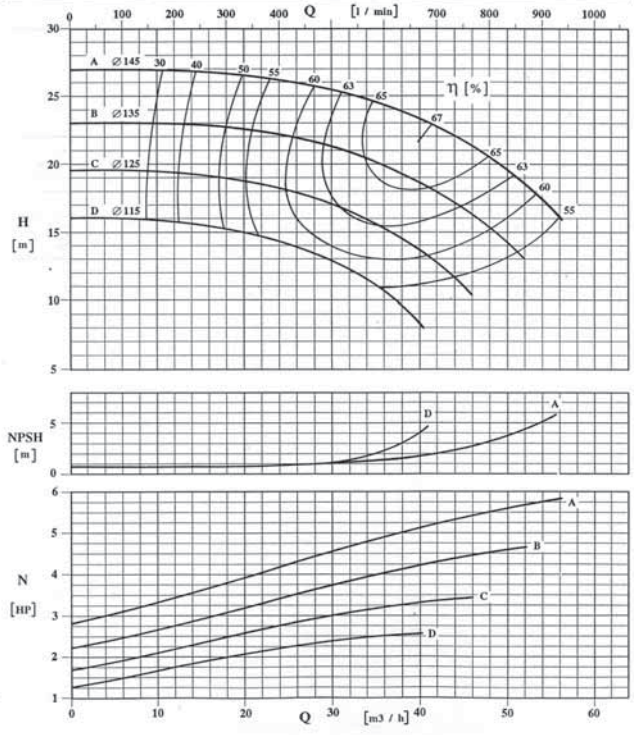


POMPA TIPO *Pump type* **CS-CSA 50 - 145** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	16 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

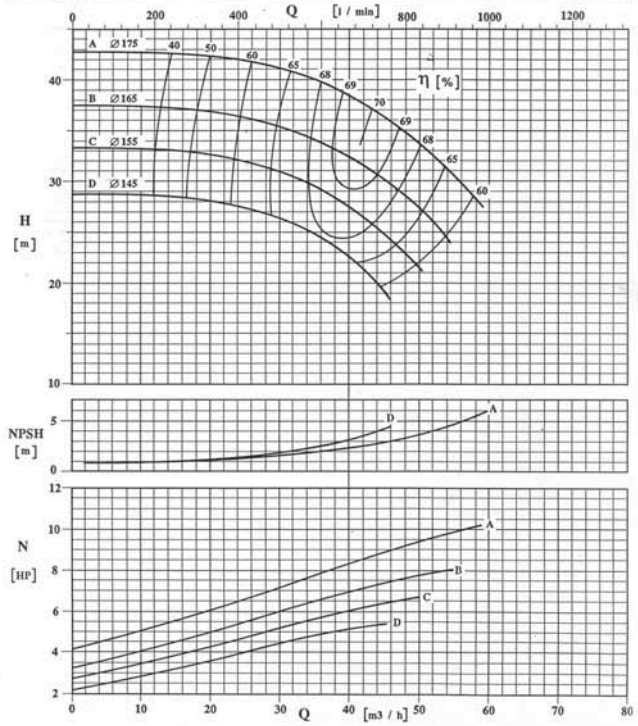
2900 giri/min - ***2900 rpm***

POMPA TIPO *Pump type* **CS-CSA 50 - 175** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	13 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

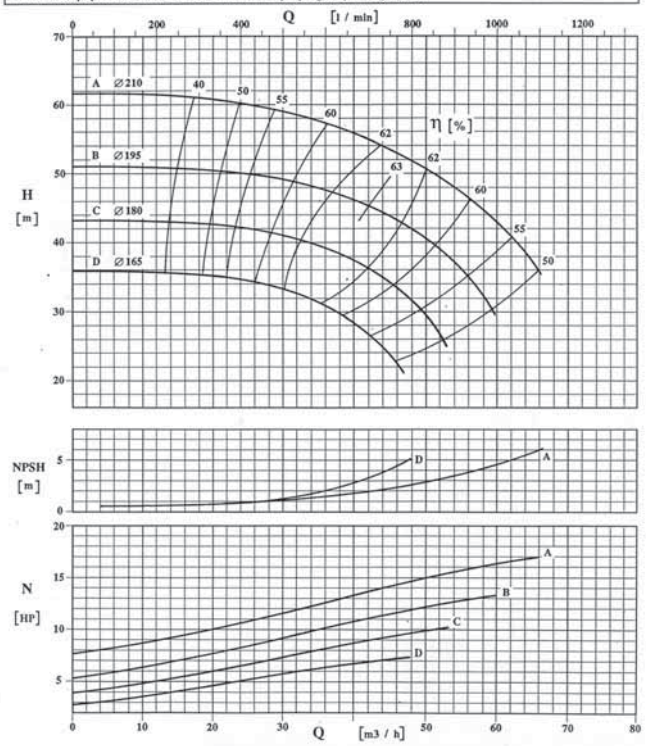


POMPA TIPO *Pump type* **CS-CSA 50 - 210** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

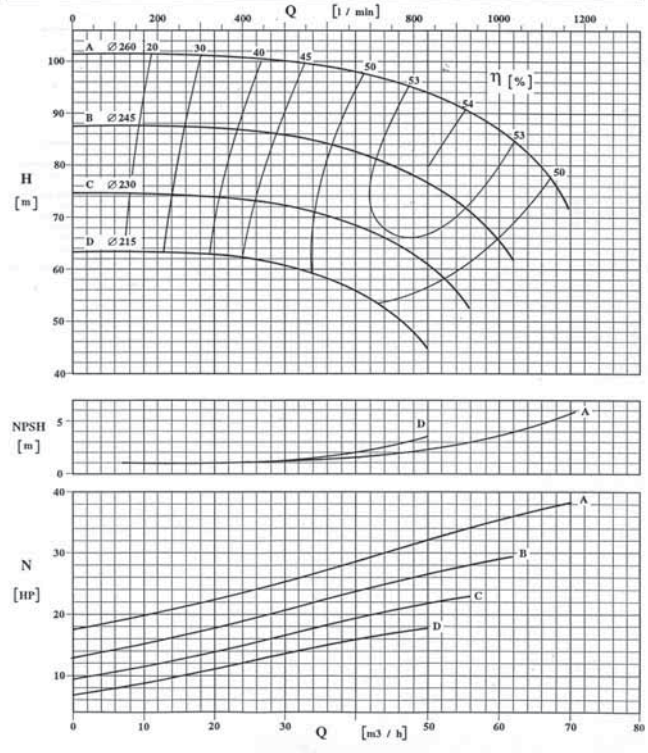


POMPA TIPO *Pump type* **CS-CSA 50 - 260** | n **2950** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	6 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

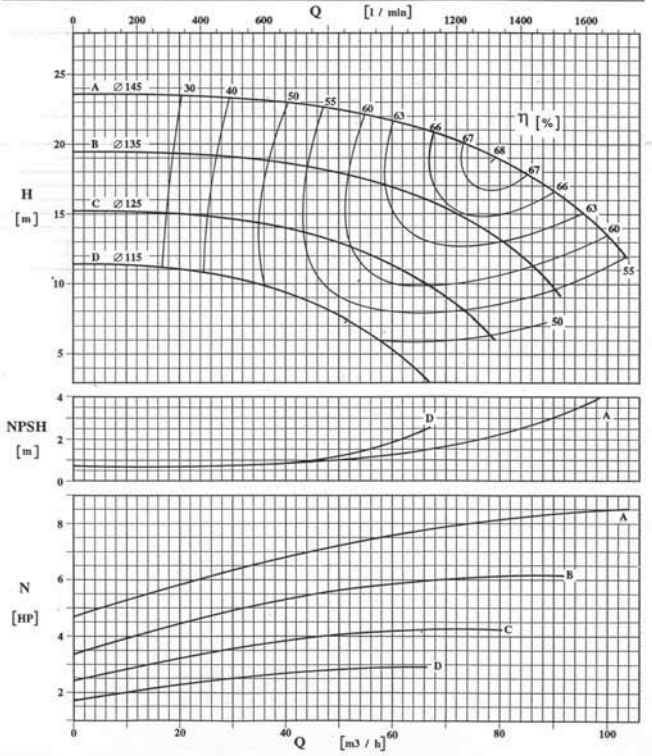


POMPA TIPO *Pump type* **CS-CSA 65 - 145** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	23 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE Serie CS-CSA
PERFORMANCE CURVES *CS-CSA Series*

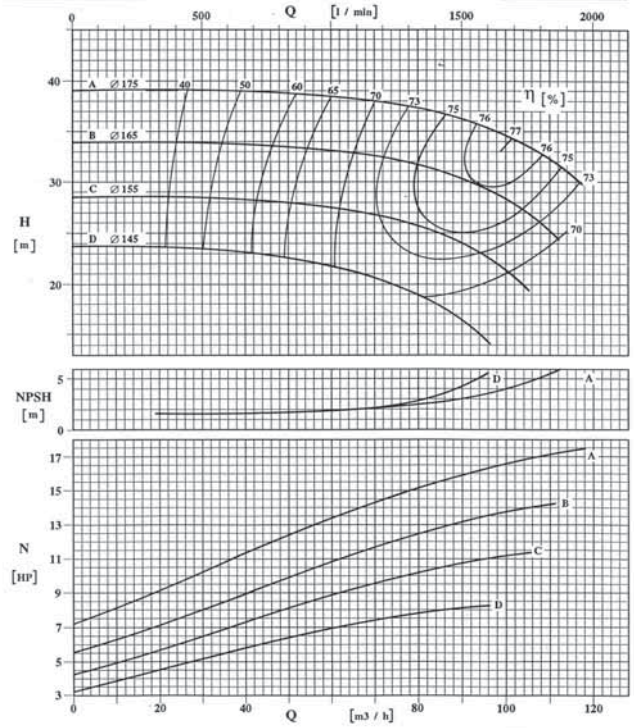
2900 giri/min - ***2900 rpm***

POMPA TIPO *Pump type* CS-CSA 65 - 175 | n 2900 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	16 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

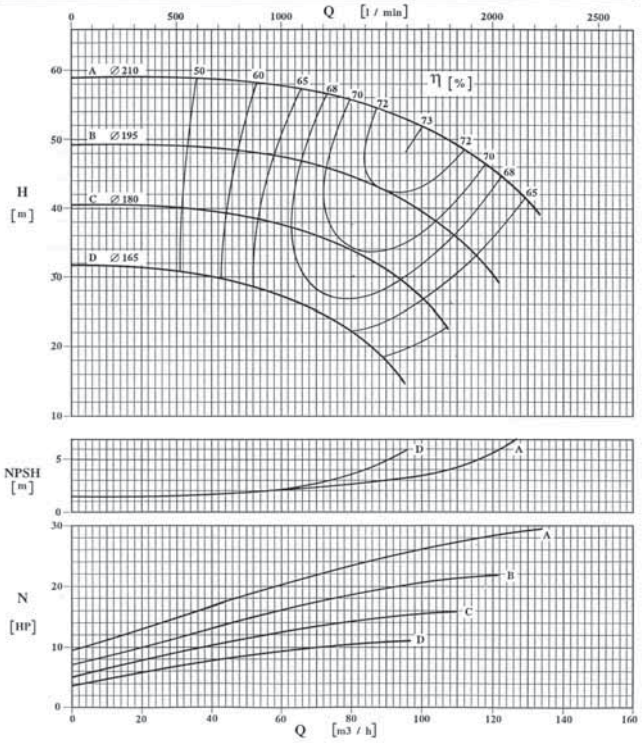


POMPA TIPO *Pump type* CS-CSA 65 - 210 | n 2900 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	12 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

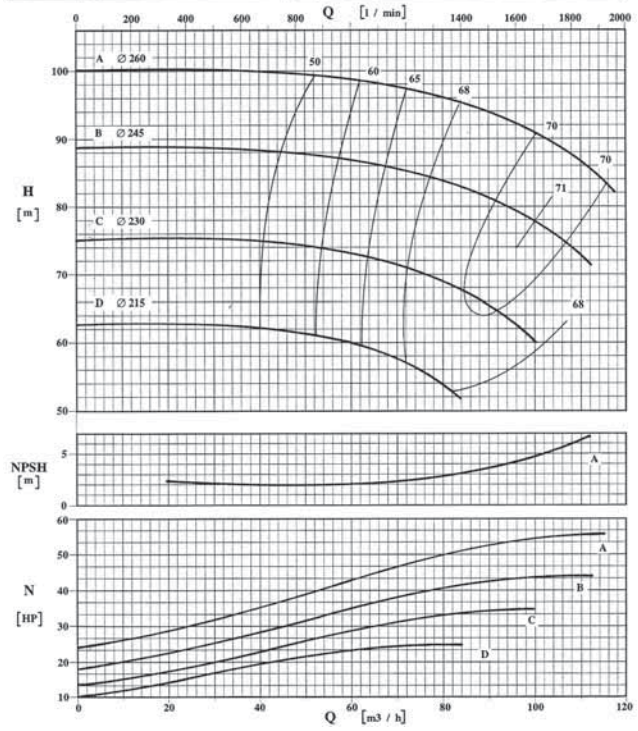


POMPA TIPO *Pump type* CS-CSA 65 - 260 | n 2900 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	10.5 mm	260 mm	215 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

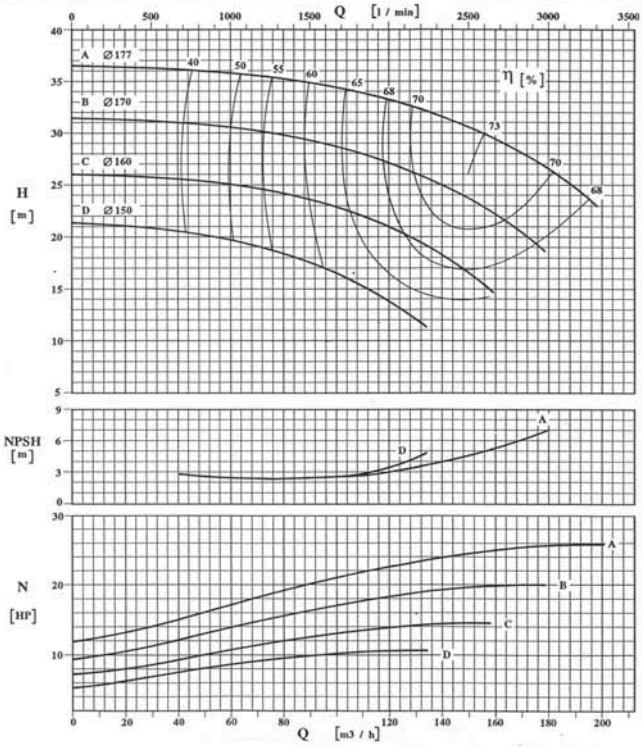


POMPA TIPO *Pump type* CS-CSA 80 - 175 | n 2900 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	22 mm	177 mm	150 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

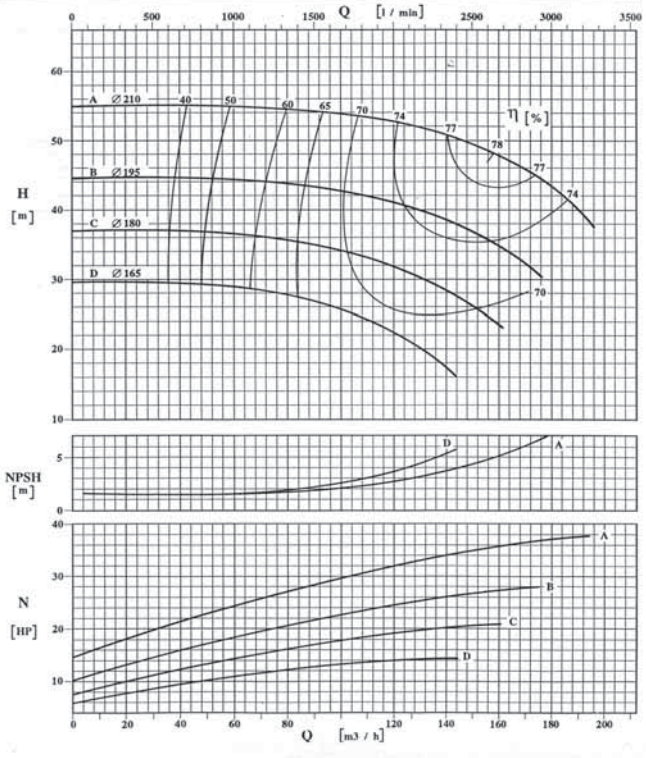
2900 giri/min - ***2900 rpm***

POMPA TIPO *Pump type* **CS-CSA 80 - 210** | n **2900** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	15 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

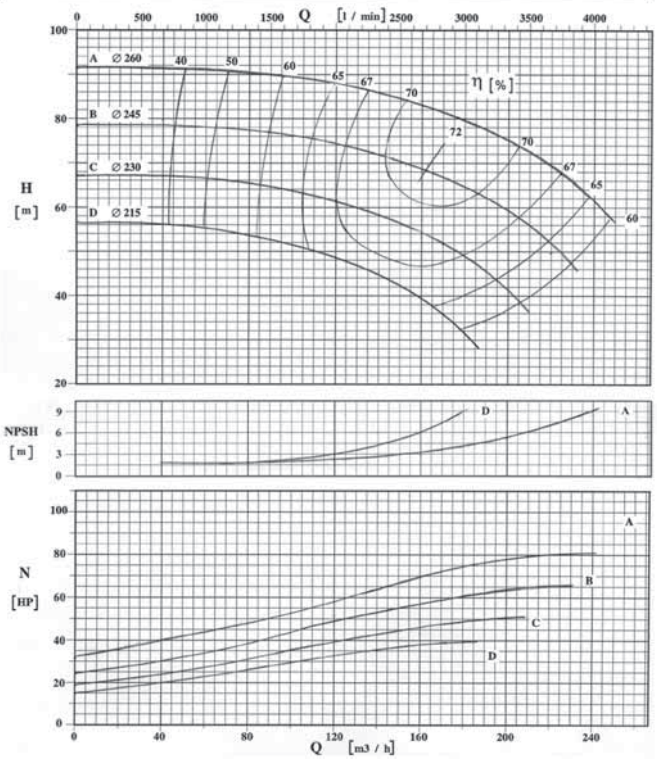


POMPA TIPO *Pump type* **CS 80 - 260** | n **2950** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	14 mm	260 mm	200 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

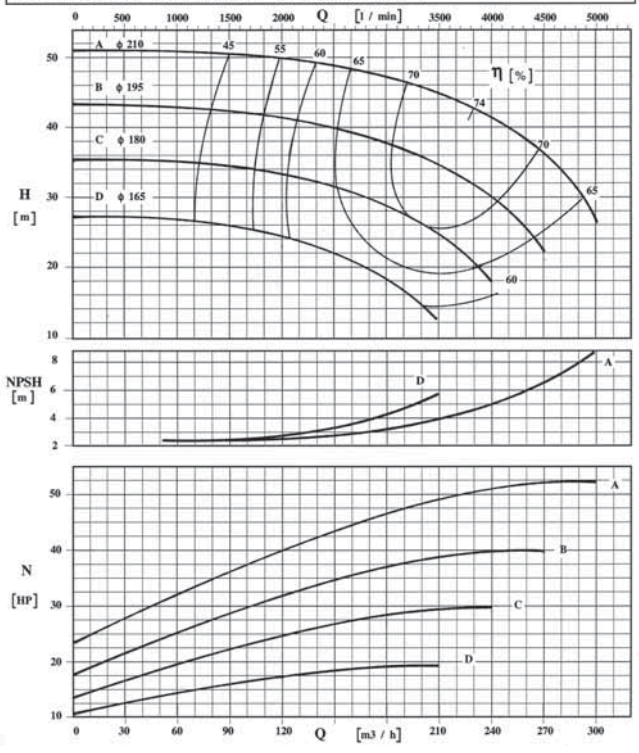


POMPA TIPO *Pump type* **CS - CSA 100 - 210** | n **2950** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	ϕ max *max. diameter*	ϕmin *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 125
APERTA	6	28 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 100

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

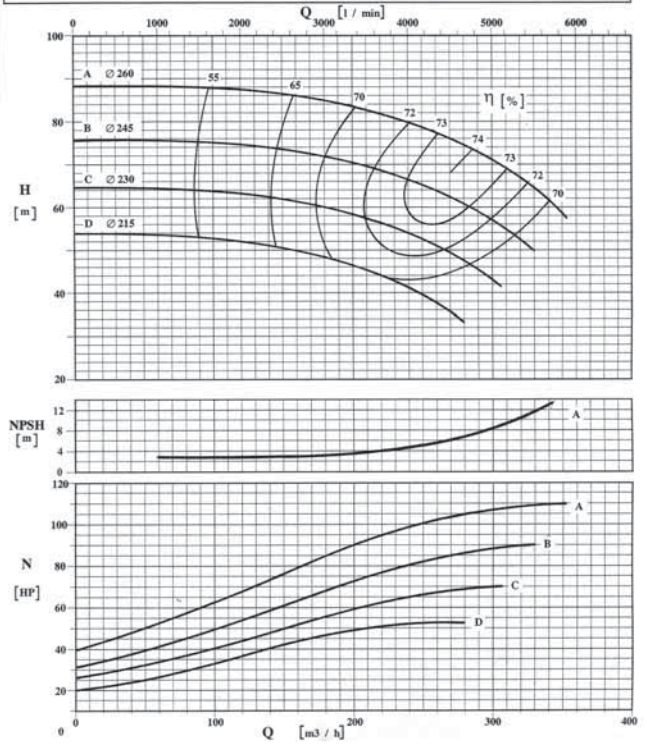


POMPA TIPO *Pump type* **CS - CSA 100 - 260** | n **2950** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 125
APERTA	6	25 mm	260 mm	200 mm	DIN 11851	Bocca mand. *Discharge port*	DN 100

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

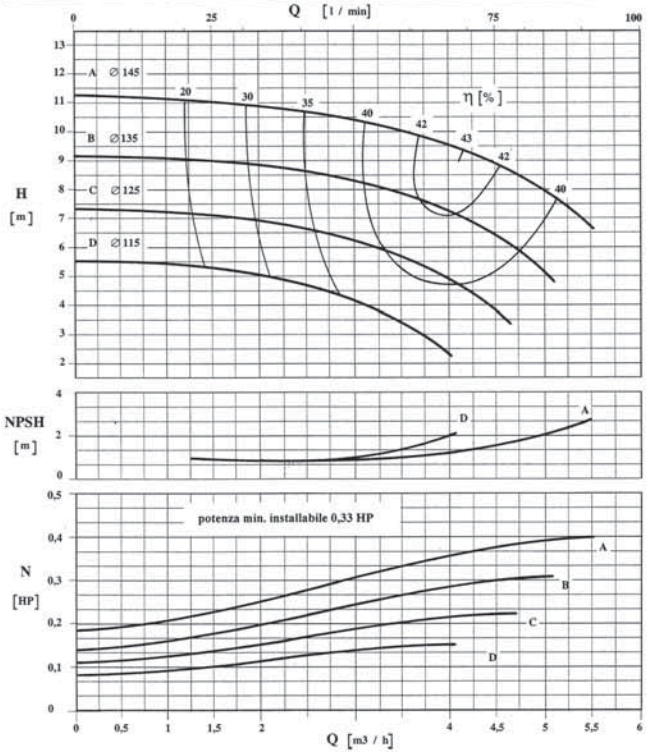
1750 giri/min - ***1750 rpm***

POMPA TIPO *Pump type* **CS 25 - 145** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

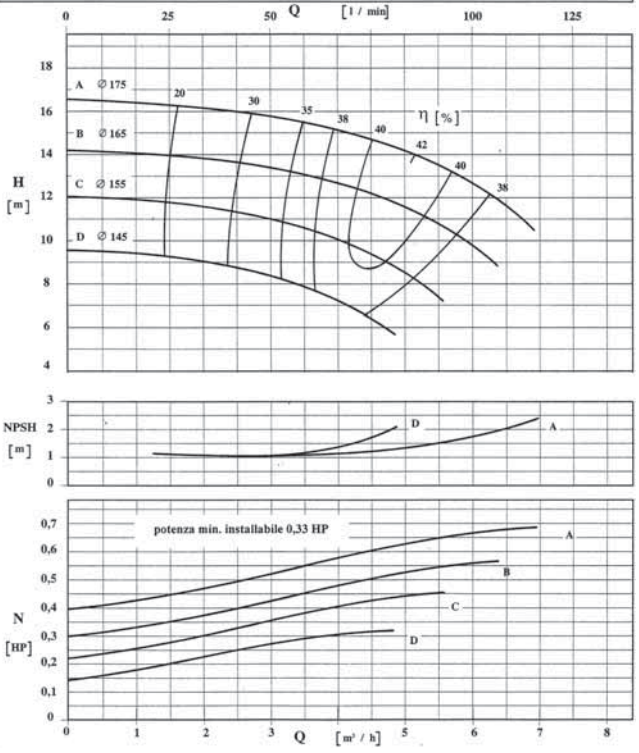


POMPA TIPO *Pump type* **CS 25 - 175** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

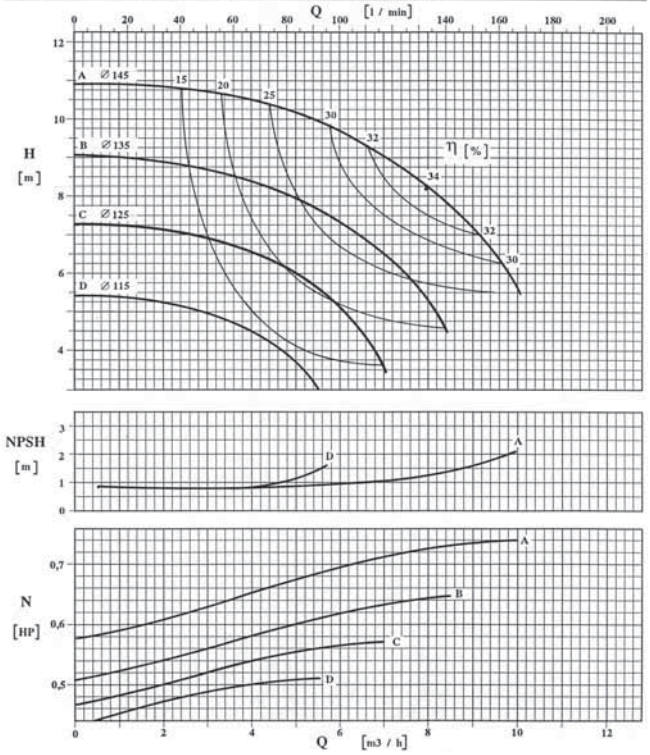


POMPA TIPO *Pump type* **CS-CSA 32 - 145** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

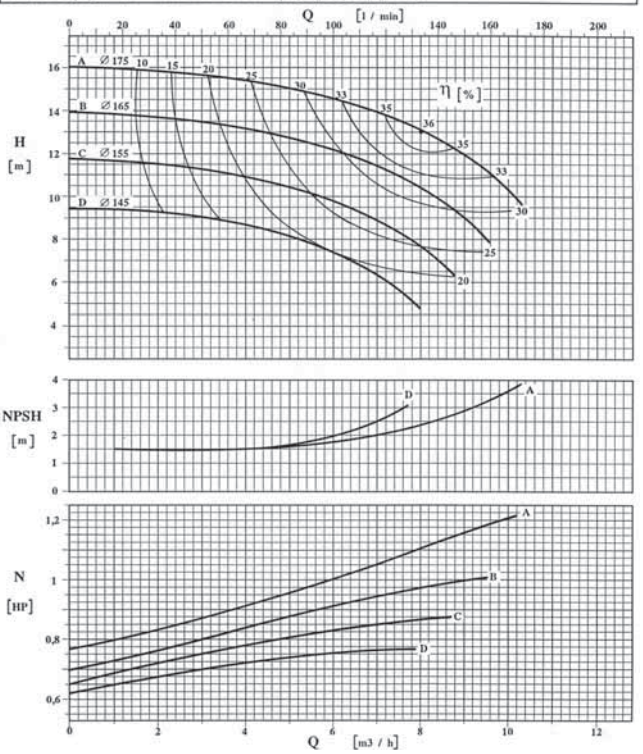


POMPA TIPO *Pump type* **CS-CSA 32 - 175** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

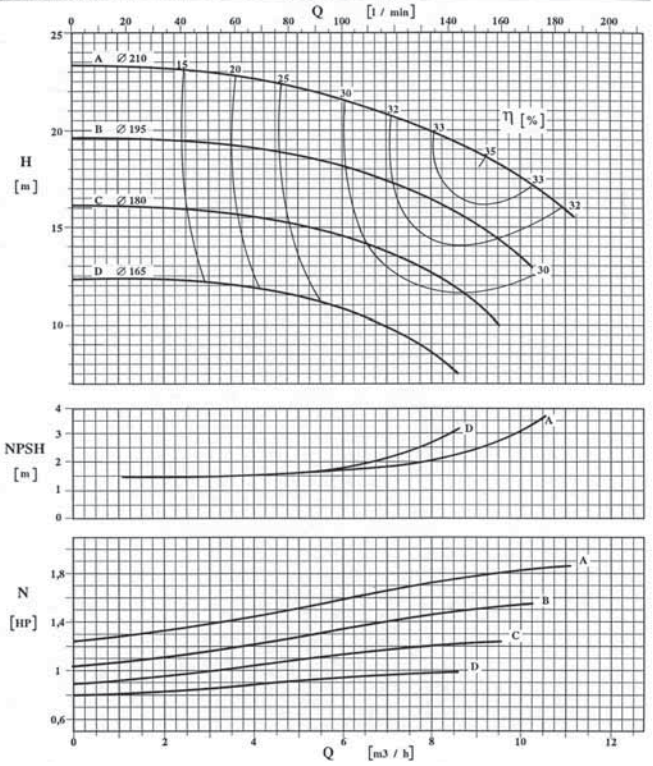
1750 giri/min - ***1750 rpm***

POMPA TIPO *Pump type* **CS-CSA 32 - 210** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

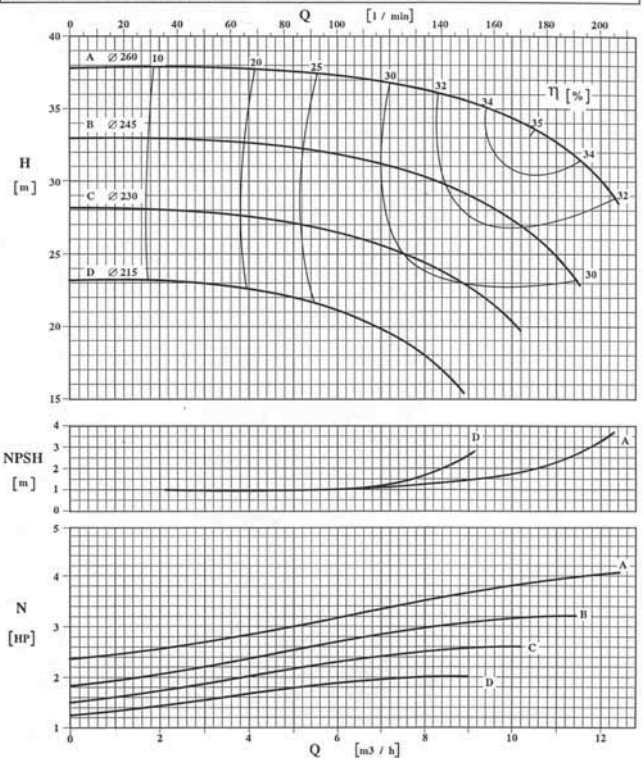


POMPA TIPO *Pump type* **CS-CSA 32 - 260** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	5 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

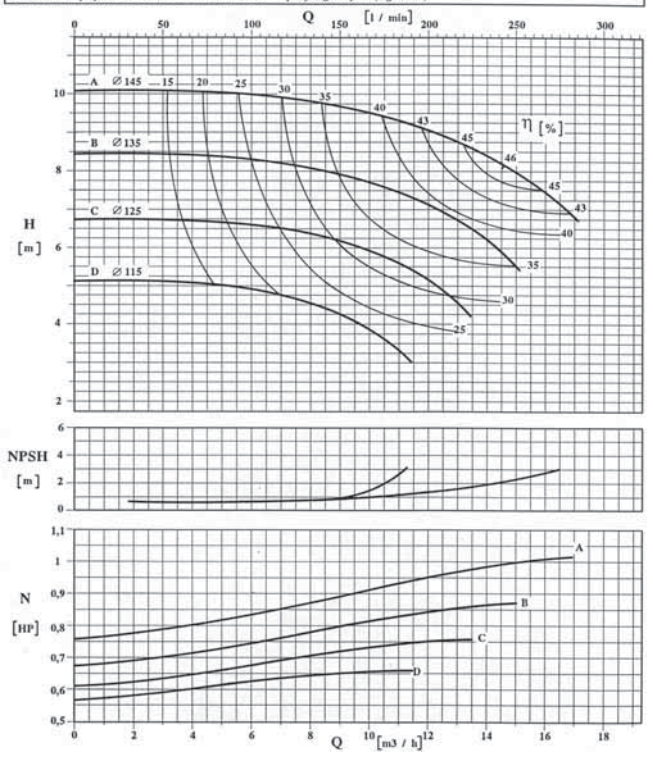


POMPA TIPO *Pump type* **CS-CSA 40 - 145** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

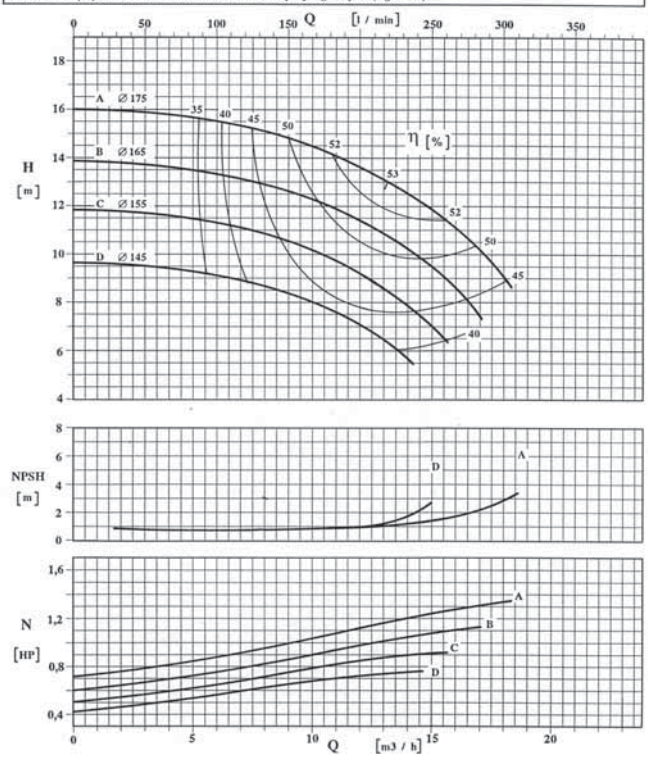


POMPA TIPO *Pump type* **CS-CSA 40 - 175** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	5,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

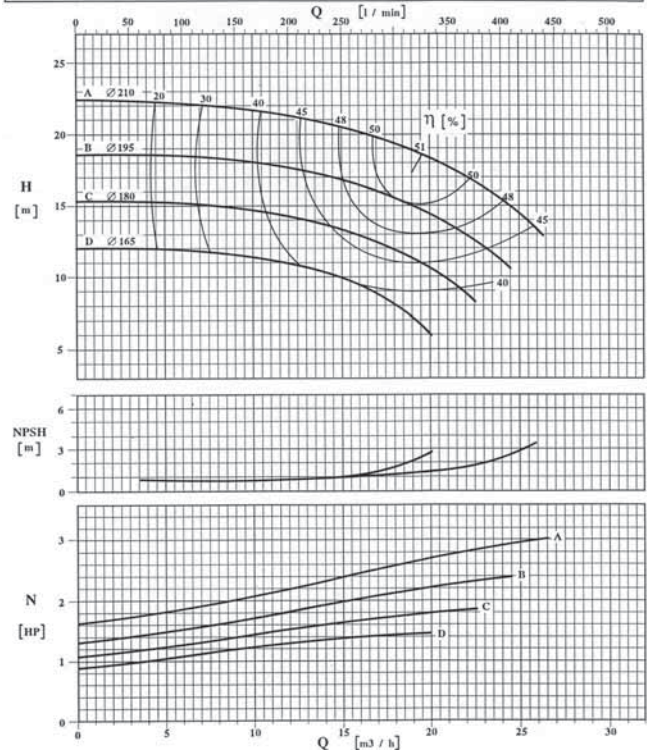
1750 giri/min - ***1750 rpm***

POMPA TIPO *Pump type* **CS-CSA 40 - 210** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

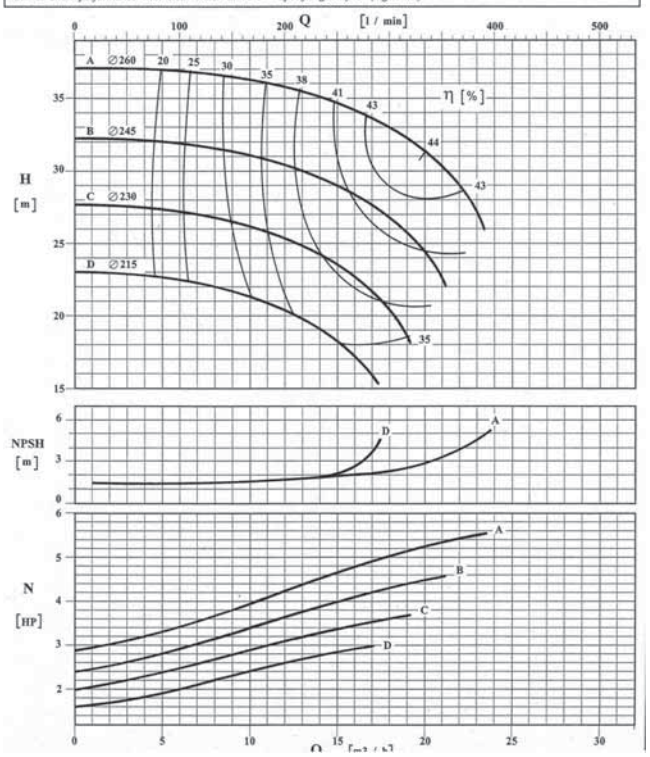


POMPA TIPO *Pump type* **CS - CSA 40 - 260** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	7 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

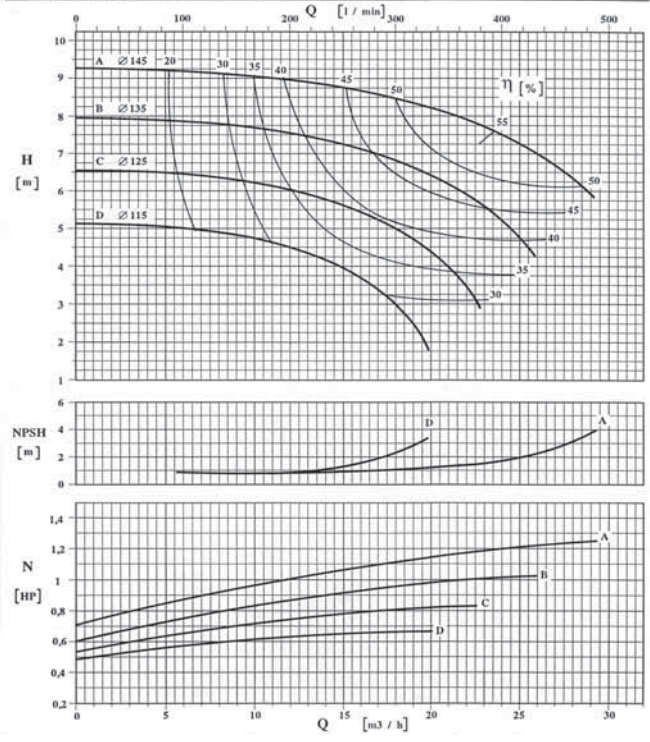


POMPA TIPO *Pump type* **CS-CSA 50 - 145** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	10 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

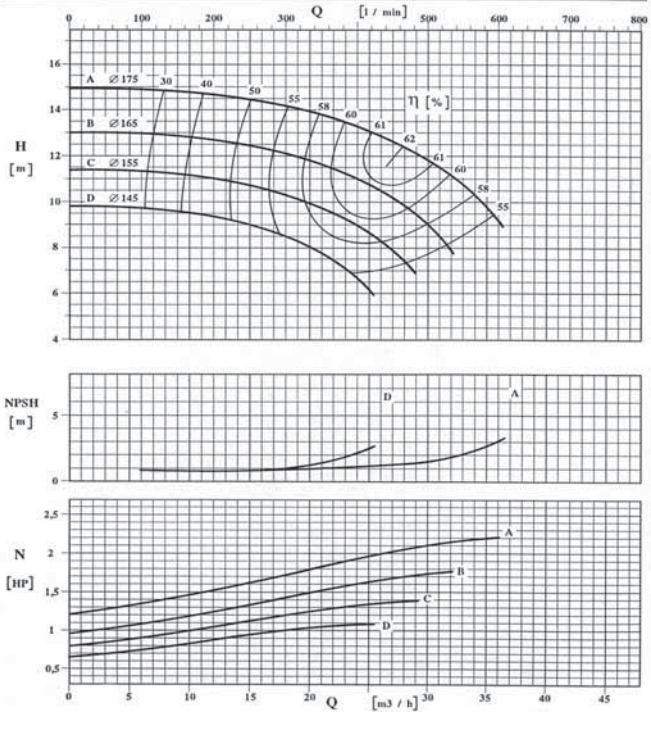


POMPA TIPO *Pump type* **CS-CSA 50 - 175** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

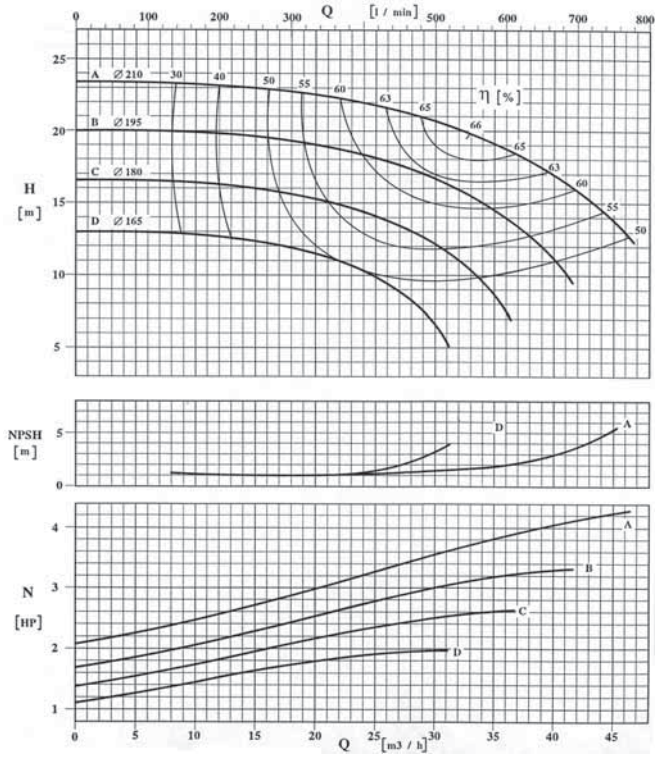
1750 giri/min - ***1750 rpm***

POMPA TIPO *Pump type* **CS-CSA 50 - 210** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

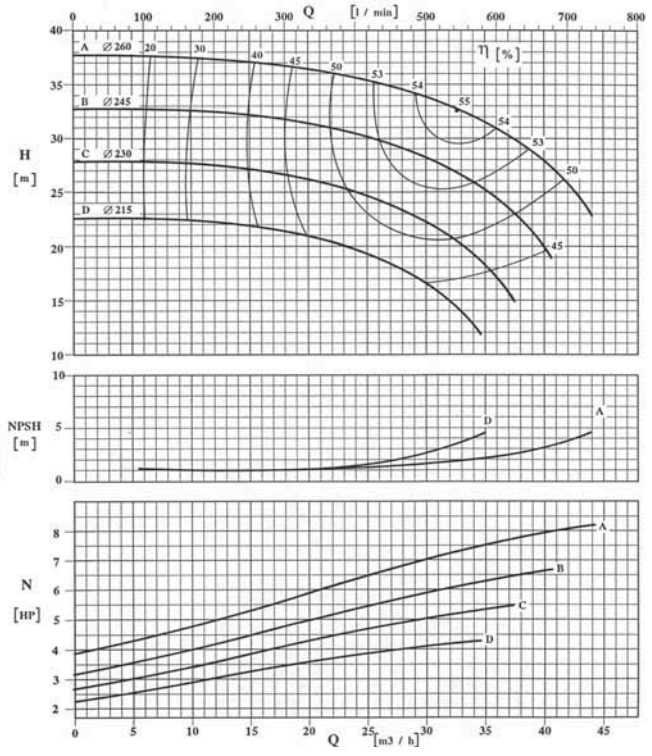


POMPA TIPO *Pump type* **CS-CSA 50 - 260** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	6 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

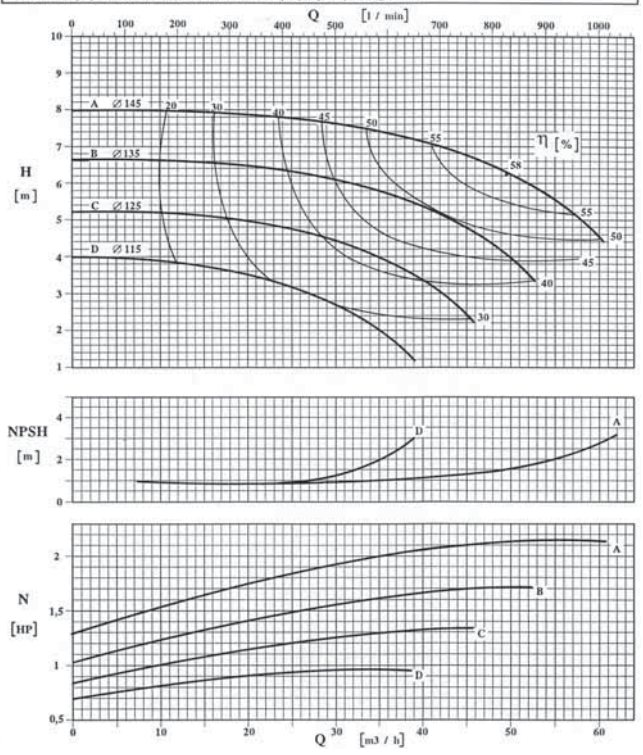


POMPA TIPO *Pump type* **CS-CSA 65 - 145** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	17 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

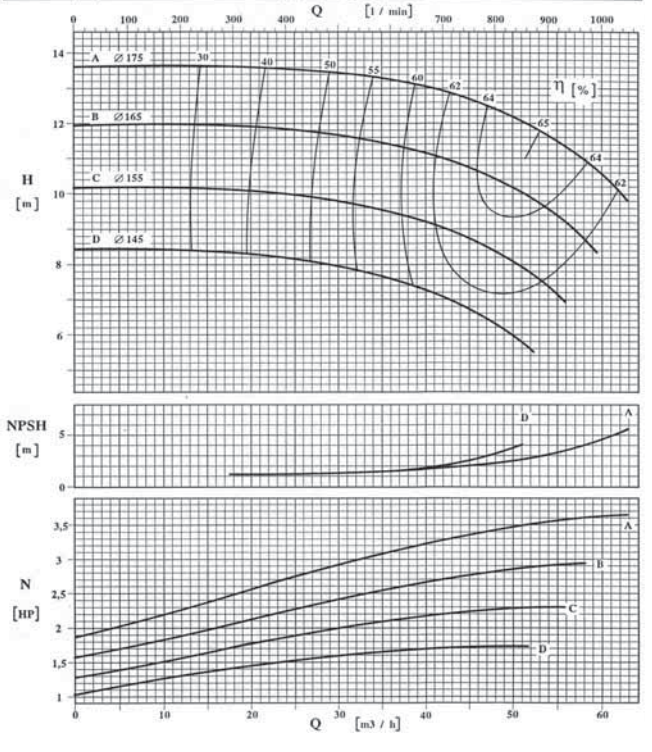


POMPA TIPO *Pump type* **CS-CSA 65 - 175** | n 1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	16 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE Serie CS-CSA
PERFORMANCE CURVES *CS-CSA Series*

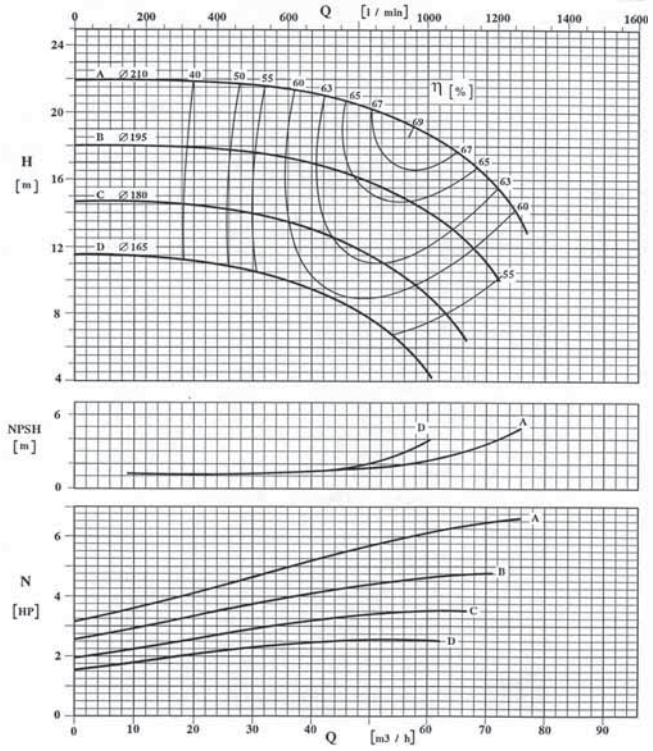
1750 giri/min - ***1750 rpm***

POMPA TIPO *Pump type*	CS-CSA 65 - 210	n	1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	12 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

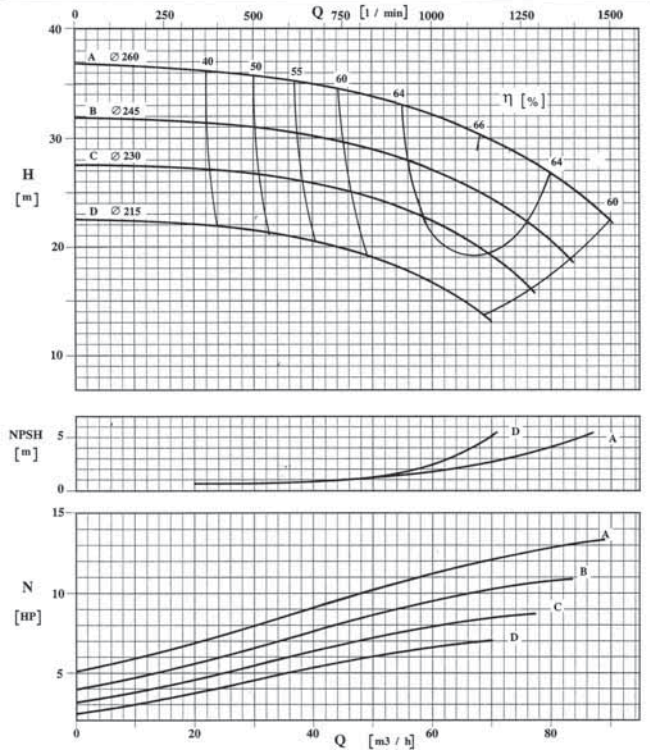


POMPA TIPO *Pump type*	CS - CSA 65 - 260	n	1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	10.5 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

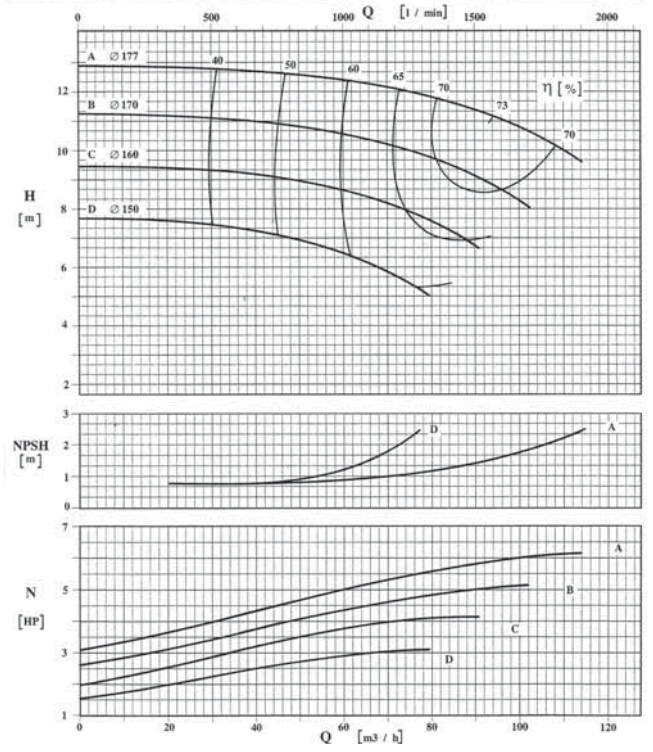


POMPA TIPO *Pump type*	CS - CSA 80 - 175	n	1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	22 mm	177 mm	150 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

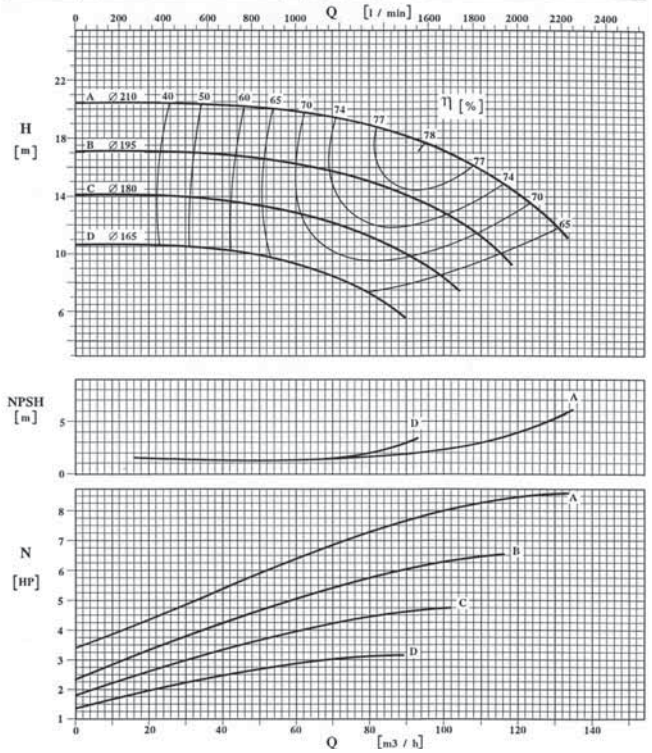


POMPA TIPO *Pump type*	CS-CSA 80 - 210	n	1750 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	15 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

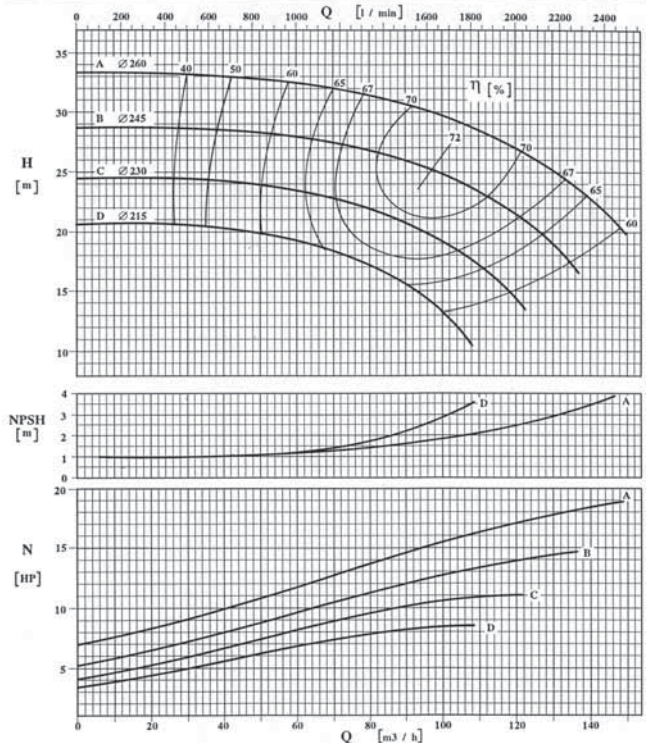
1750 giri/min - ***1750 rpm***

POMPA TIPO *Pump type* **CS-CSA 80 - 260** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	14 mm	260 mm	200 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

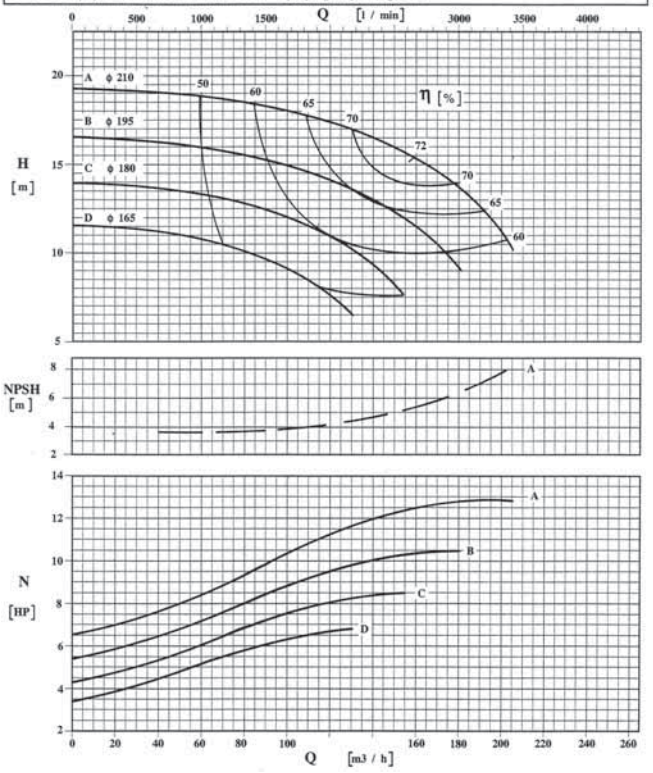


POMPA TIPO *Pump type* **CS - CSA 100 - 210** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	ϕ max *max. diameter*	ϕmin *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 125
APERTA	6	28 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 100

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

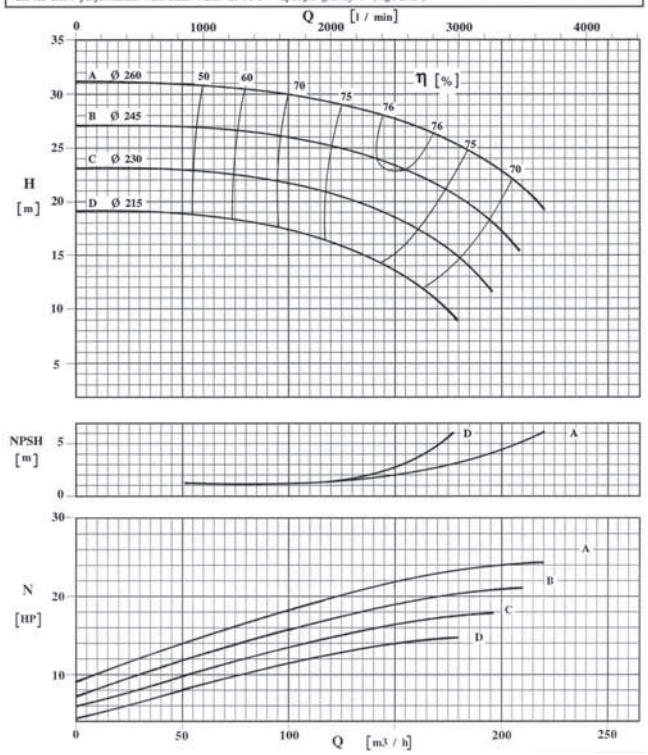


POMPA TIPO *Pump type* **CS-CSA 100 - 260** | n **1750** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 125
APERTA	6	25 mm	260 mm	210 mm	DIN 11851	Bocca mand. *Discharge port*	DN 100

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

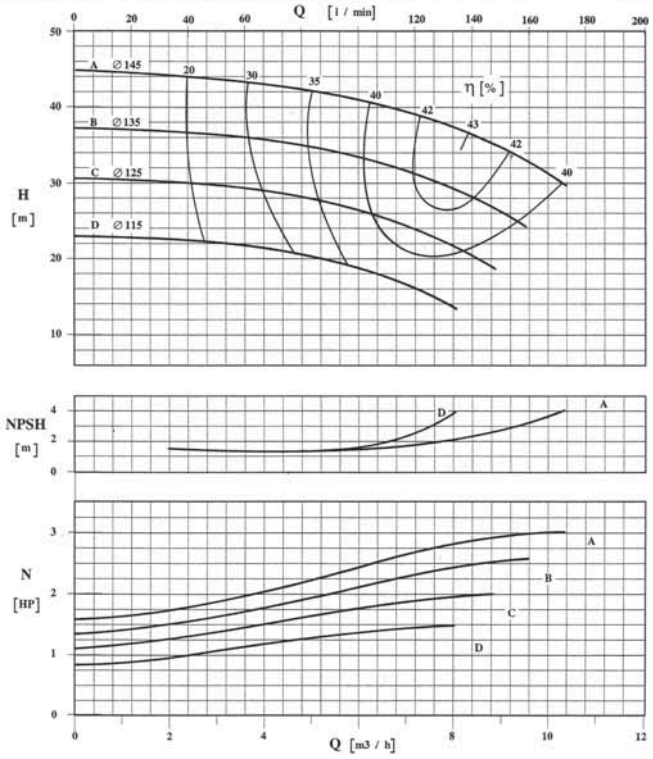
3500 giri/min - ***3500 rpm***

POMPA TIPO *Pump type* **CS 25 - 145** — n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

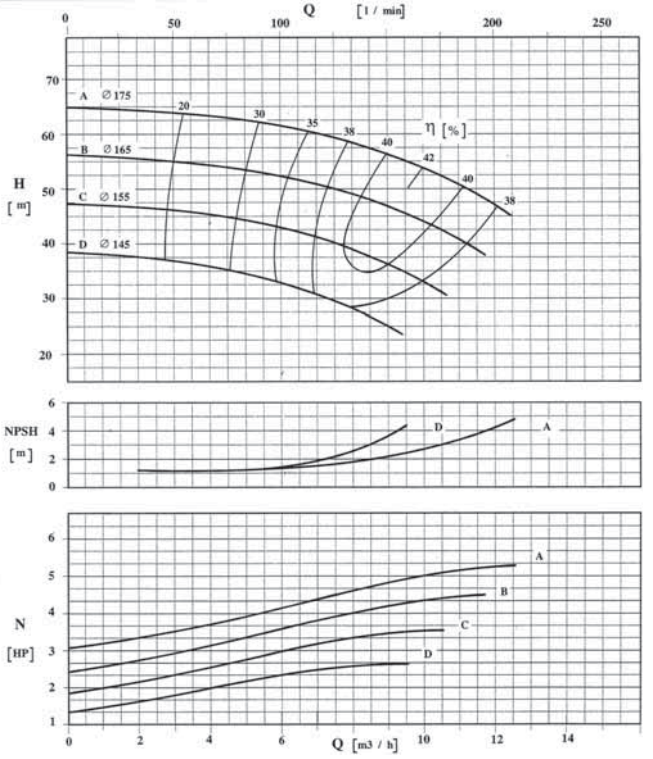


POMPA TIPO *Pump type* **CS 25 - 175** — n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 32
APERTA	6	3,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 25

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

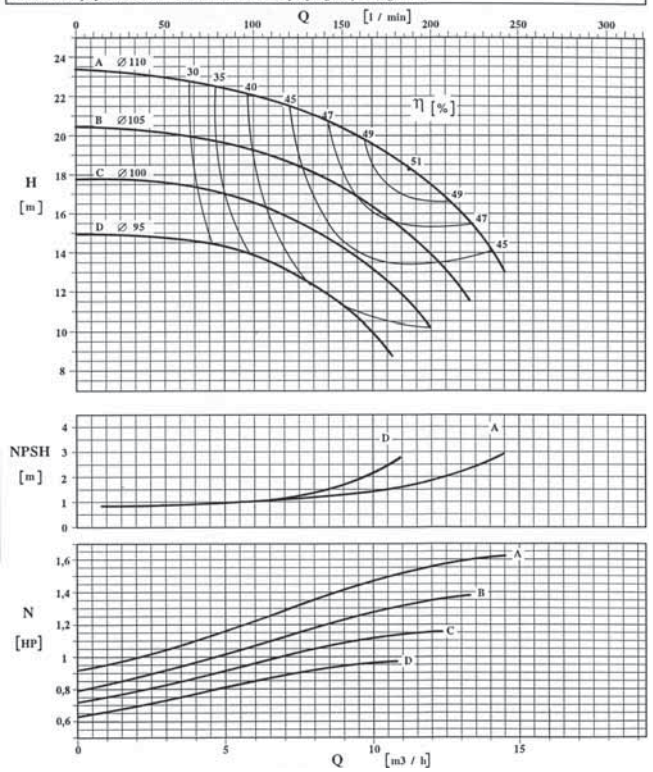


POMPA TIPO *Pump type* **CS 32-110** — n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	110 mm	95 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

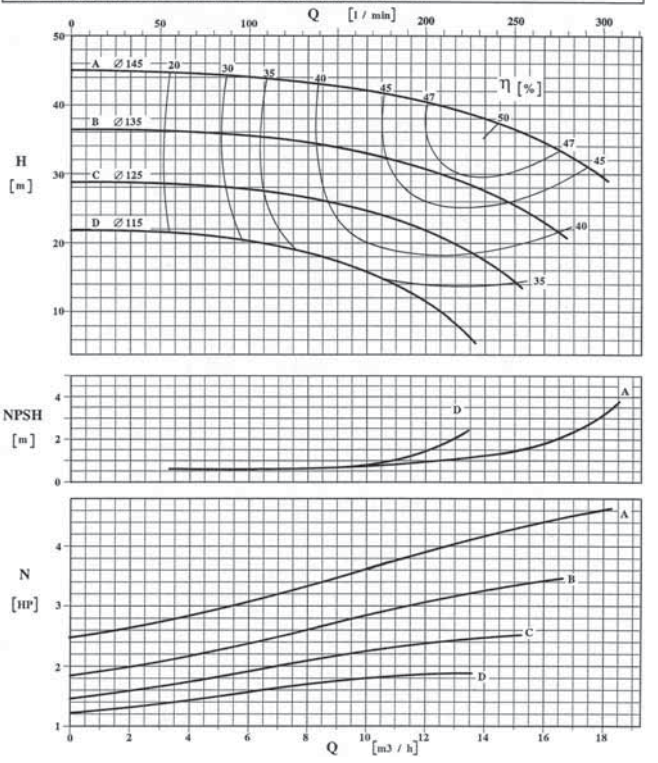


POMPA TIPO *Pump type* **CS-CSA 32 - 145** — n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	∅ max *max. diameter*	∅ min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	5 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

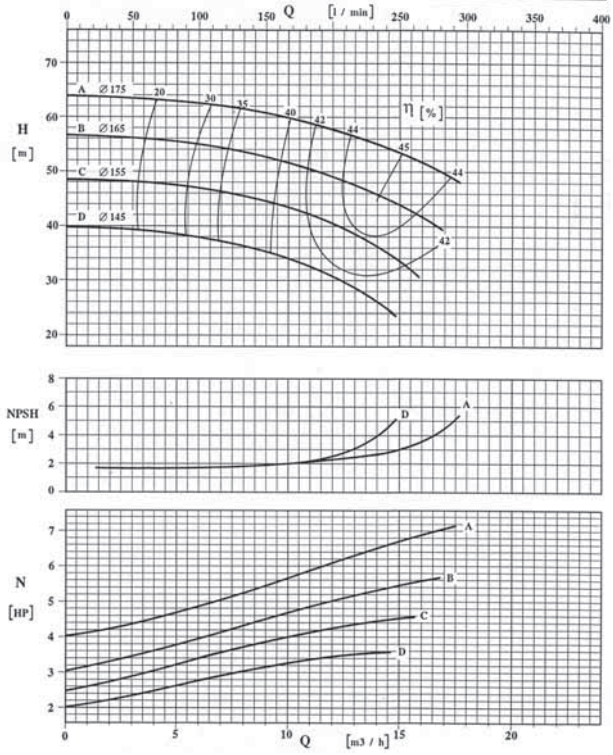
3500 giri/min - ***3500 rpm***

POMPA TIPO *Pump type* **CS-CSA 32 - 175** | n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

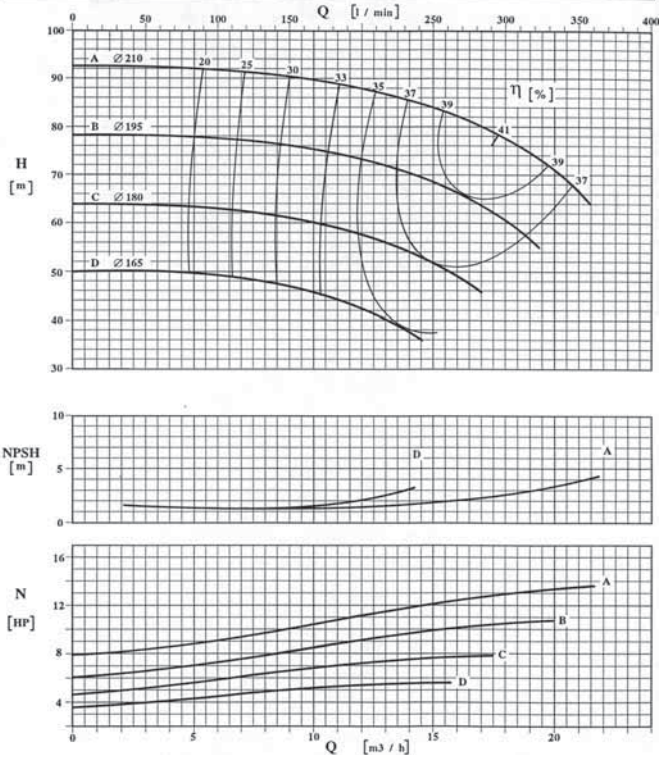


POMPA TIPO *Pump type* **CS-CSA 32 - 210** | n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 40
APERTA	6	4 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 32

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

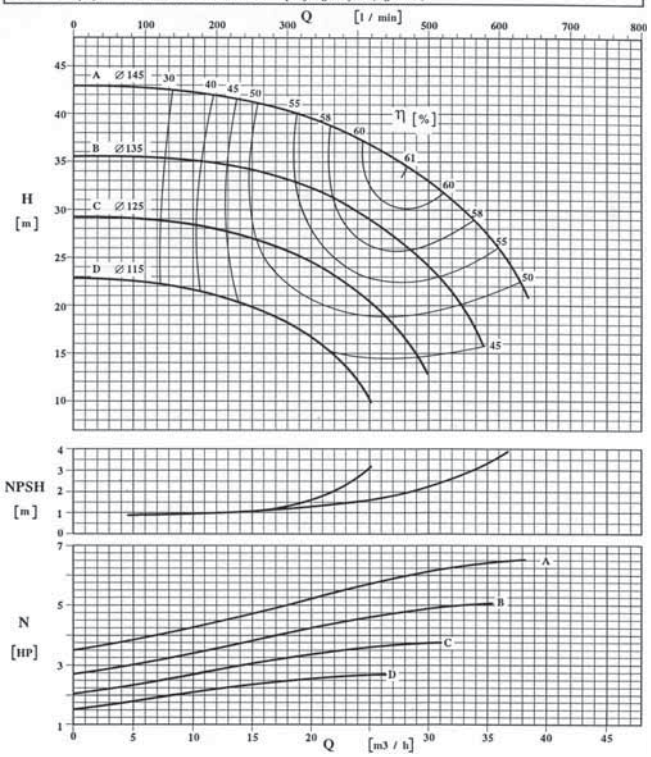


POMPA TIPO *Pump type* **CS-CSA 40 - 145** | n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

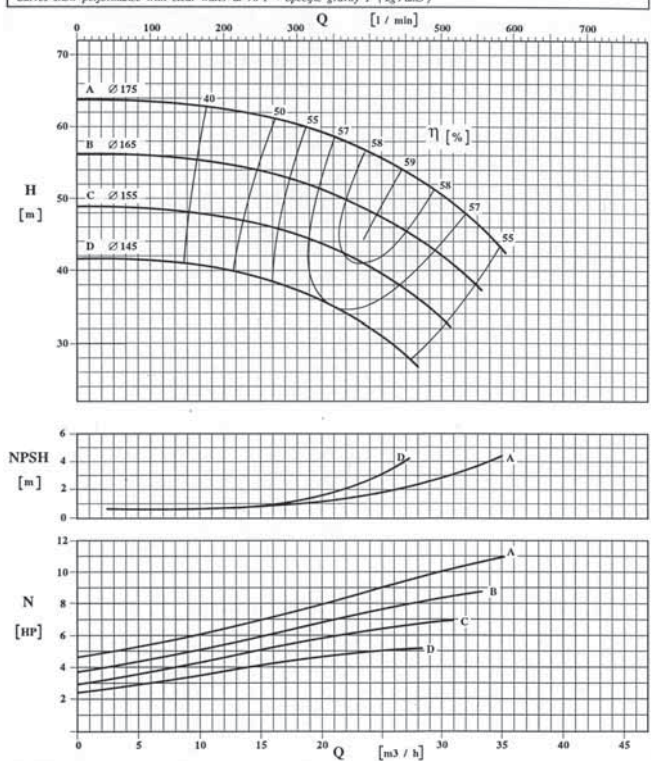


POMPA TIPO *Pump type* **CS-CSA 40 - 175** | n **3500** giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	5,5 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

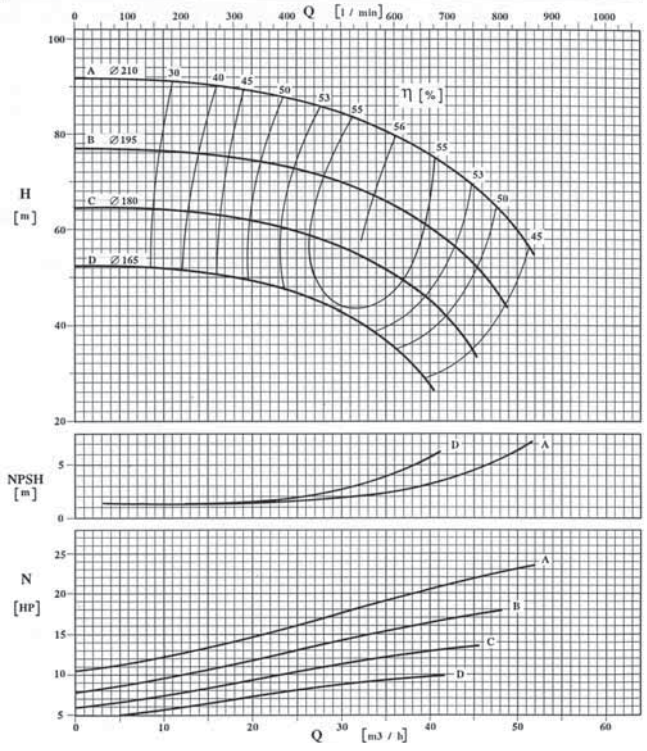
3500 giri/min - ***3500 rpm***

POMPA TIPO *Pump type* CS-CSA 40 - 210 | n 3500 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 50
APERTA	6	6 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 40

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

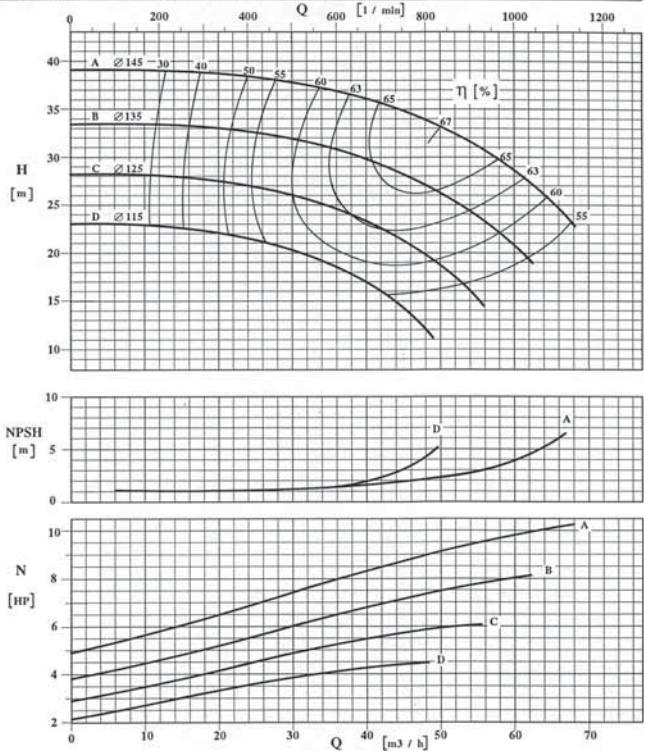


POMPA TIPO *Pump type* CS-CSA 50 - 145 | n 3500 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	10 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

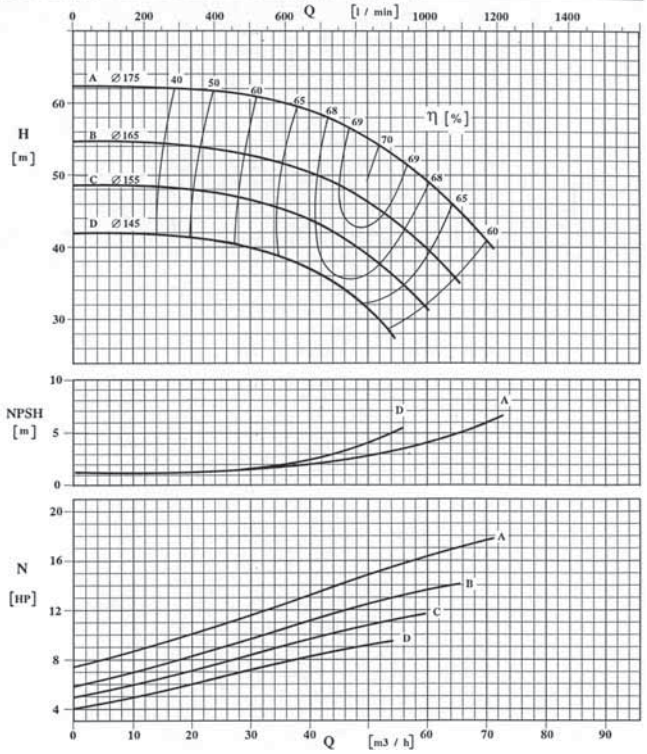


POMPA TIPO *Pump type* CS-CSA 50 - 175 | n 3500 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

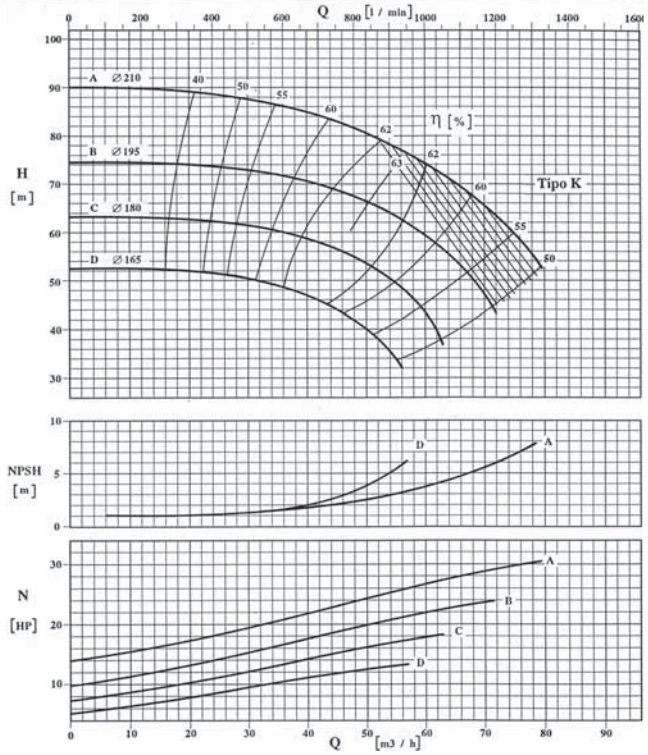


POMPA TIPO *Pump type* CS-CSA 50 - 210 | n 3500 giri / min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 65
APERTA	6	8 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 50

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

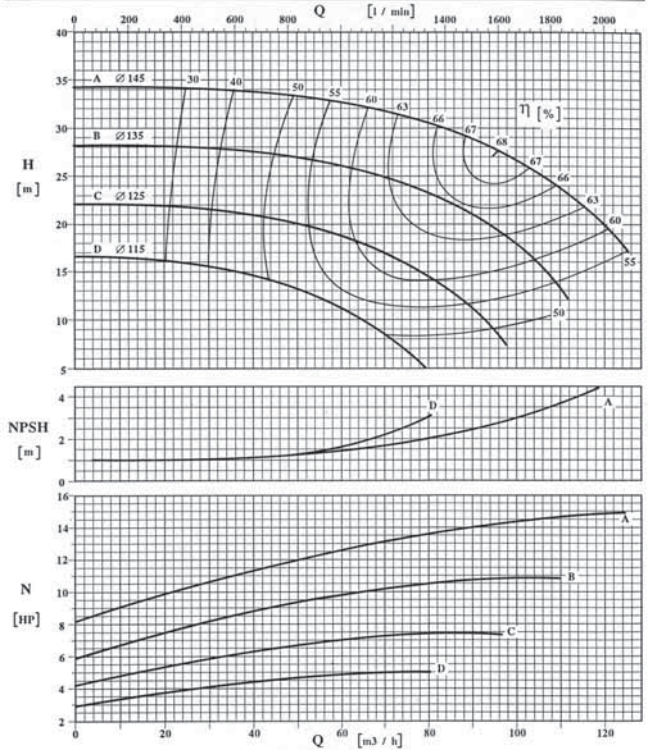
3500 giri/min - ***3500 rpm***

POMPA TIPO *Pump type* **CS-CSA 65 - 145** | n 3500 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	18 mm	145 mm	115 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

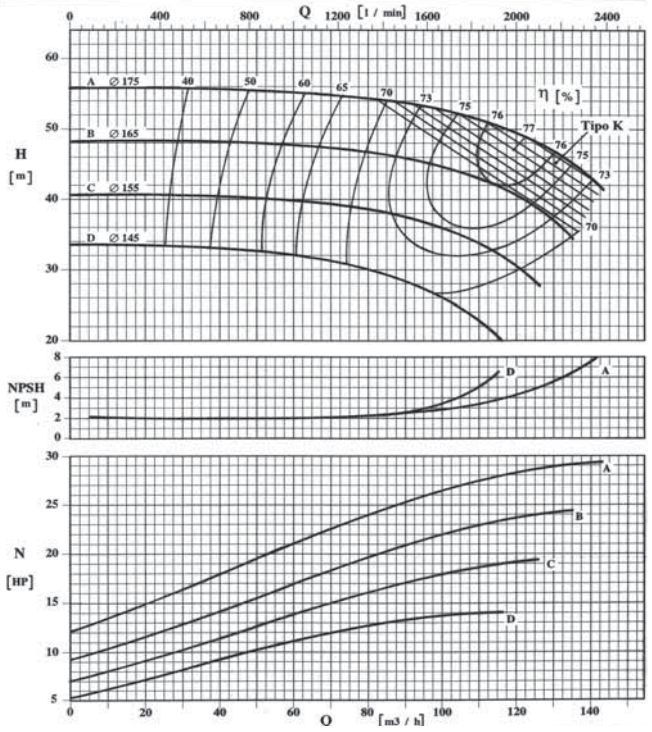


POMPA TIPO *Pump type* **CS - CSA 65 - 175** | n 3500 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	16 mm	175 mm	145 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

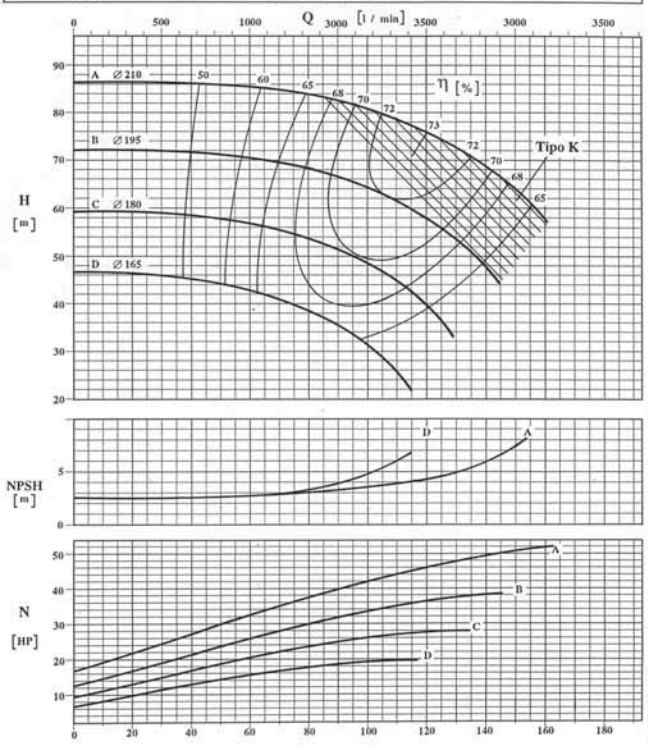


POMPA TIPO *Pump type* **CS-CSA 65 - 210** | n 3500 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 80
APERTA	6	12 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 65

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)

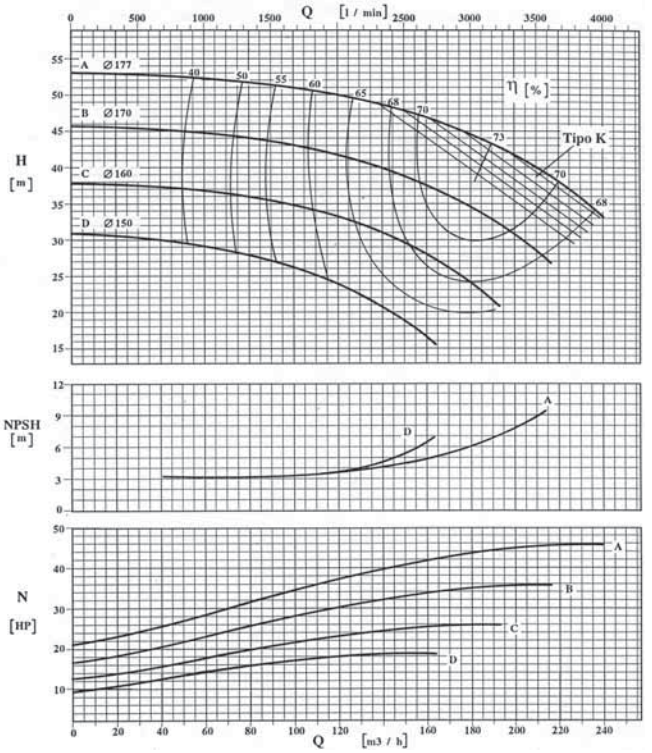


POMPA TIPO *Pump type* **CS-CSA 80 - 175** | n 3500 giri/min *r. p. m.*

GIRANTE — *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	22 mm	177 mm	150 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg/dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg/dm3)



CURVE CARATTERISTICHE — Serie CS-CSA
PERFORMANCE CURVES — *CS-CSA Series*

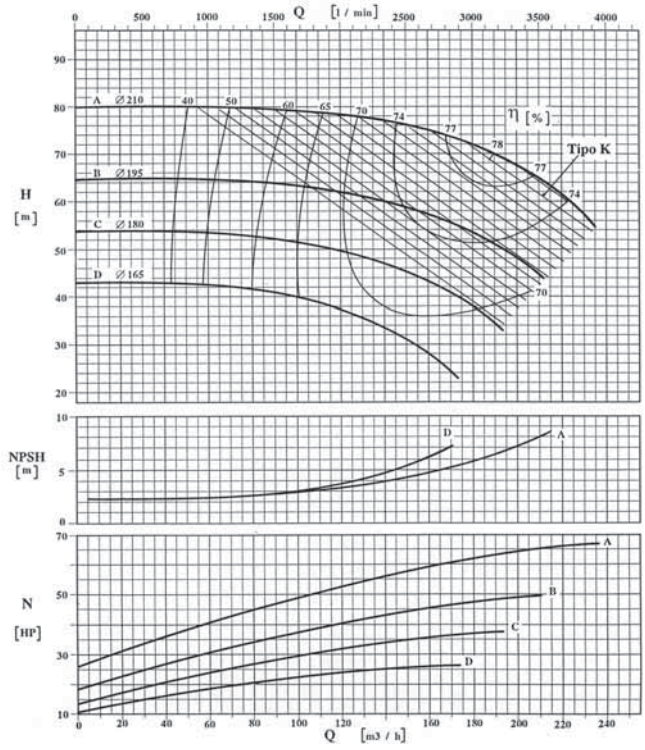
3500 giri/min - ***3500 rpm***

POMPA TIPO *Pump type*	CS-CSA 80 - 210	n	3500 giri / min *r. p. m.*

GIRANTE —— *Impeller*

TIPO *Type*	N° di pale *n° of vanes*	Pass. sferico *max. sphere*	Ø max *max. diameter*	Ø min *min. diameter*	Bocche tipo *Ports type*	Bocca aspir. *Suction port*	DN 100
APERTA	6	15 mm	210 mm	165 mm	DIN 11851	Bocca mand. *Discharge port*	DN 80

CARATTERISTICHE DI FUNZIONAMENTO CON ACQUA PULITA A 20°C - PESO SPECIFICO 1 (kg / dm3)
Curves show performance with clear water at 70°F - Specific gravity 1 (kg / dm3)

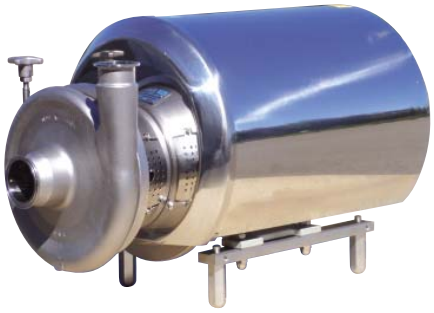


Hygienic Centrifugal pumps

n° 02 - 10 739

CSA Series

CSA series pumps are designed, tested and approved to EHEDG (European Hygienic Engineering & Design Group) hygiene protocols and to US 3A standards. Used mainly in the foodstuffs and pharmaceutical industries, they fulfil the highest sanitary requirements.
The modular construction enables CSF to provide the most suitable pump. Optimised performance and low NPSH requirements are integral to the design of CSA Series pumps.



Standard design

Open impeller.

Wetted parts in CF-3M 1.4404 / AISI 316L stainless steel, investment cast and electro-chemically polished.

Special internal finish to 0,5 micron Ra.

Adjustable stainless steel feet.

Flow rates up to 300 m^3/h, heads up to 100 m (10 bar); low NPSH requirements.

Sanitary Self-Priming Pumps

n° 02 - 10 739

ASH series

ASH Series pumps are approved to the latest US 3A sanitary standards; ideal for systems where compliance to the most strict hygiene regulations is essential.
The ability of ASH pumps to repeatedly create a vacuum makes them ideal for applications where air or gas is entrained in the pumped liquid – Perfect for CIP scavenge and duties where the inlet pipework is only partially filed with fluid, including foaming products.
Manufactured for a wide range of requirements in the food, beverage and pharmaceutical process sector. This market leading design includes the latest technologies and construction materials.

Standard design

Wetted parts in CF-3M 1.4404 / AISI 316L stainless steel.
Investment cast and electro-chemically polished.

Special internal finish 0,5 micron Ra.

Adjustable stainless steel feet.

Flow rates up to 40 m^3/h, heads up max. 35 m (3,5 bar)
(50 Hz).

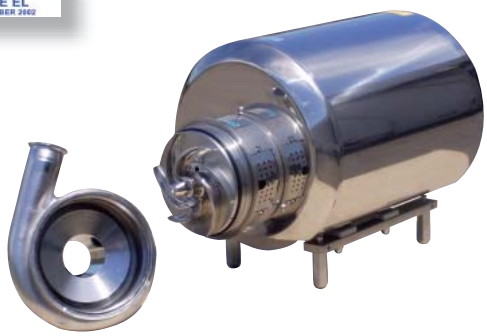
CSA series

Closed coupled sanitary centrifugal pumps with open impeller and independent shaft support.

Suitable for motors in compliance with the following standards:
IEC 34-1
VDE 0530T1
NF C51-111
BS5000 PART 99
NEMA NG1 PART. 1

Greased lubricated bearings.
Clamp design casing and seal. Easy disassembly, quick inspection, cleaning and maintenance. Rotation of the delivery port for optimised installation.

n° 02 - 10 739



CSA SERIES CERTIFIED TO EHEDG / 3A

Seals:

Single external mechanical seal
Double flushed (axial + radial) mechanical seal

CSA SERIES CERTIFIED TO 3A

Seals:

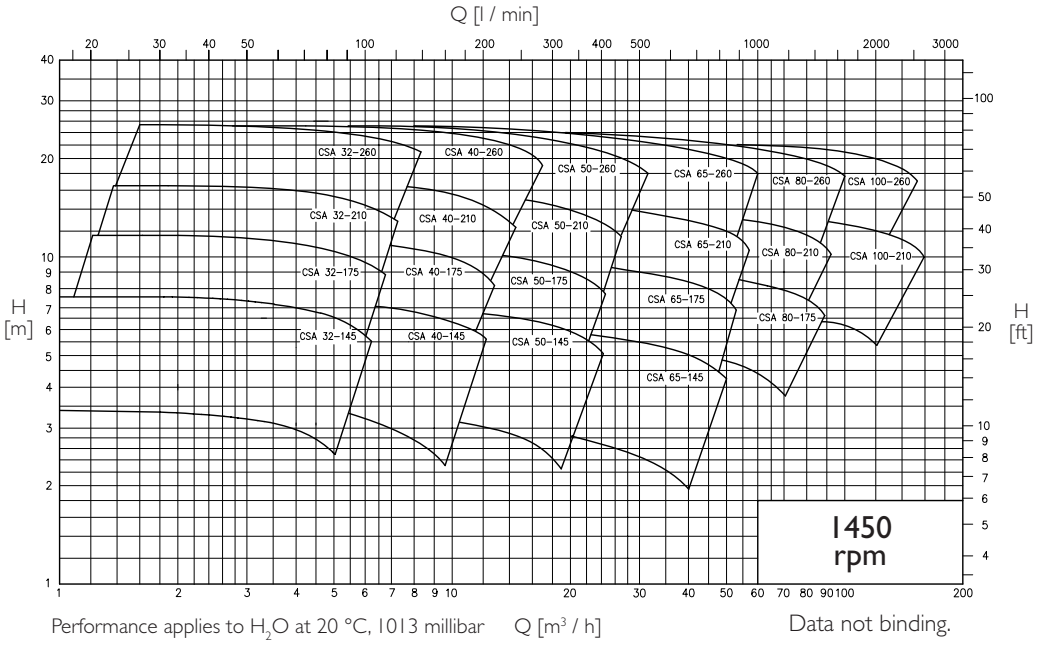
Protected, balanced and bi-directional internal mechanical seal with seats according to EN 12756, ISO 3069 standards.

Elastomers (certified to FDA - 3A - USPVI):

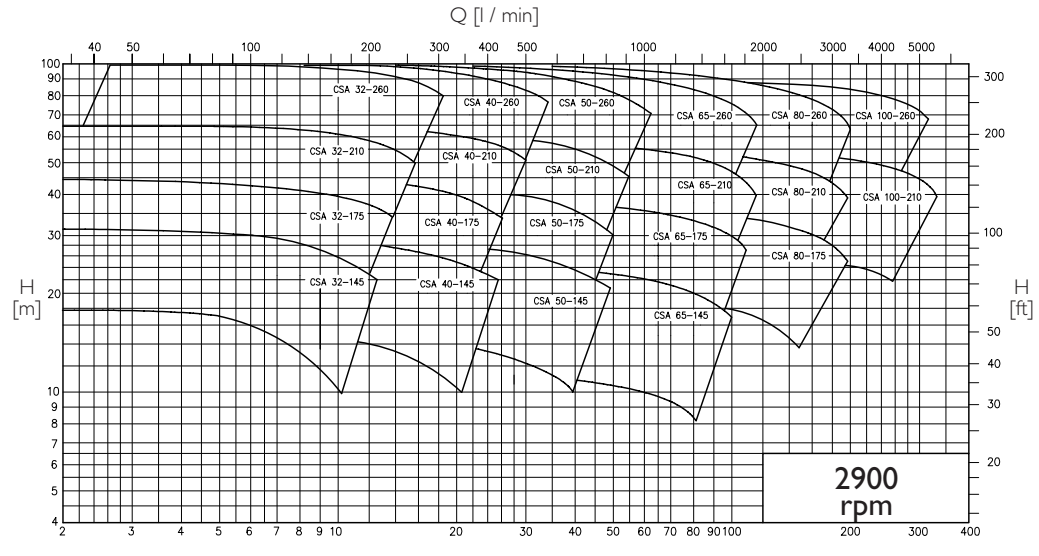
EPDM
FLUOROCARBON - (FPM *DIN/ISO*), (FKM *ASTM*)
P.T.F.E. (FEP)

Connections:
CLAMP
DIN 11864
Others on request

GENERAL DIAGRAMS



Performance applies to H_2O at 20 °C, 1013 millibar Q [m^3 / h] Data not binding.



Performance applies to H_2O at 20 °C, 1013 millibar Q [m^3 / h] Data not binding.

ASH series

Close coupled sanitary self-priming pumps with independent shaft support.

Suitable for motors in compliance with the following standards:
IEC 34-1
VDE 0530T1
NF C51-111
BS5000 PART 99
NEMA NG1 PART. 1

n° 02 - 10 739

Greased lubricated bearings.
Clamp design casing and seal. Easy disassembly, quick inspection, cleaning and maintenance.

Seals:

Single internal mechanical seal, protected, balanced and bi-directional, with seats according to EN 12756, ISO 3069.

Elastomers (certified to FDA - 3A - USPVI):

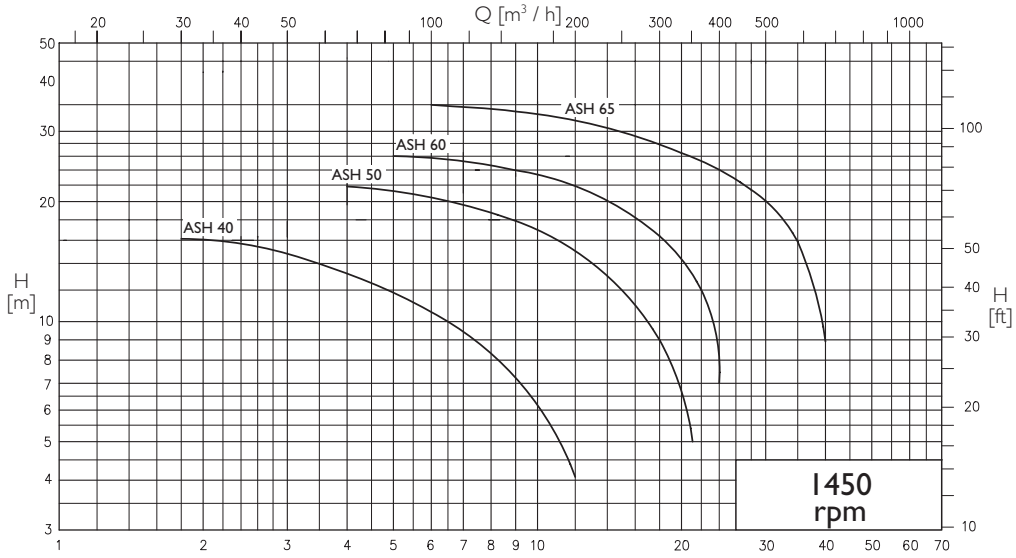
EPDM
FLUOROCARBON - (FPM *DIN/ISO*), (FKM *ASTM*)
P.T.F.E. (FEP)

Connections:

CLAMP
DIN 11864
Others on request

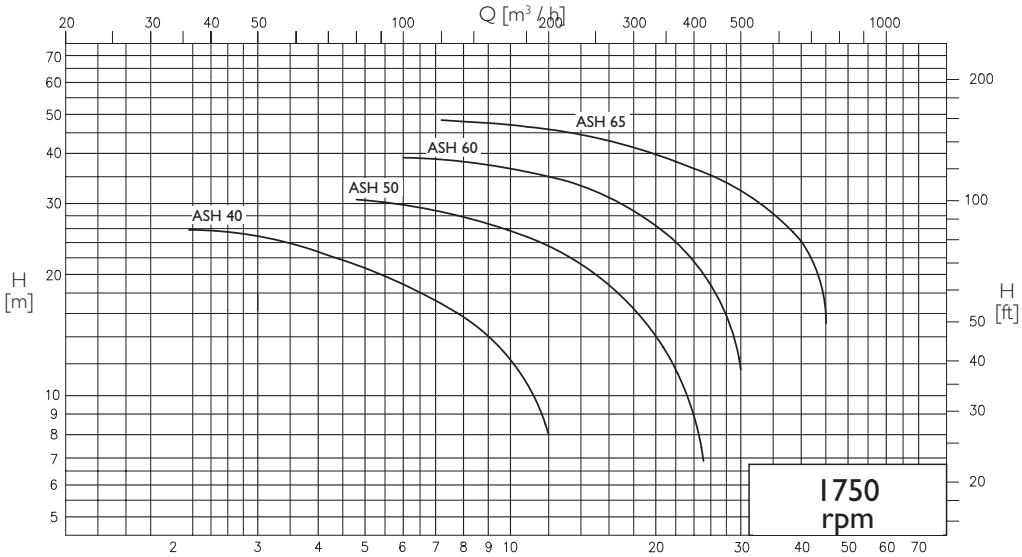
GENERAL DIAGRAMS

A 50 Hz



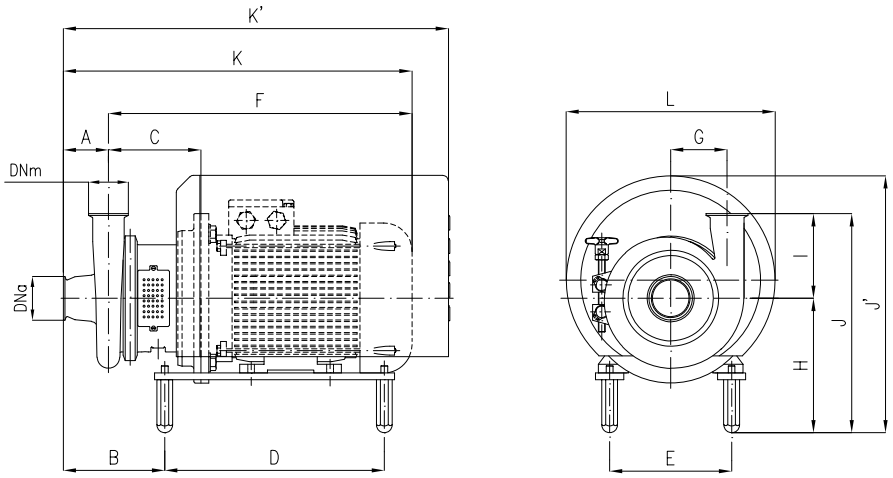
Performance applies to H_2O at 20 °C, 1013 millibar Q [l / min] Data not binding.

A 60 Hz



Performance applies to H_2O at 20 °C, 1013 millibar Q [l / min] Data not binding.

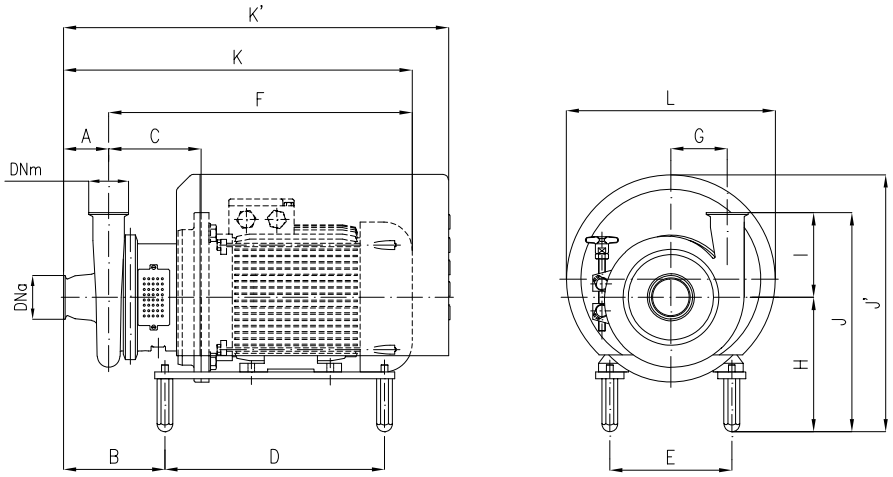
CSA OVERALL DIMENSIONS



Dimensions not binding - DN = "Clamp" ISO 2852 connections, with standard IEC/EN motors

Pumps	IEC motors size:	DNa	DNm	A	B	C	D	E	F	G	H	K	K'	I	J	J'	L
CSA 32-145	80	1"1/2	1"1/2	80	166	138	254	125	372	85	220	452	566	148	368	384	298
	90				172			140	419		230	499			378	394	
	100				158	139	314	160	451		240	531	637		388	404	
	112				165			190	473		230	553			378	394	
CSA 32-175	80	1"1/2	1"1/2	80	167	139	254	125	373	95	220	453	567	148	368	384	298
	90				173			140	420		230	500			378	394	
	100				159	140	314	160	452		240	532	637		388	404	
	112				166			190	473		230	553			378	394	
CSA 32-210	80	1"1/2	1"1/2	80	167	139	254	125	373	110	230	453	567	168	398	402	298
	90				173			140	420			500					
	100				159	140	314	160	452		240	532	637		408	412	
	112				166			190	473		230	553			398	402	
	132 M-S				177	161	389	216	534		255	614	680		423	472	370
	132 MB								578			658	735				
	160				241	206	460	254	684		280	764	935		448	536	430
CSA 32-260	90	2"	1"1/2	90	207	163	254	140	444	140	260	534	601	168	428	424	298
	100				193	164	314	160	476			566	671				
	112				200			190	497			587					
	132 M-S				211	185	389	216	558			648	714			477	370
	132 MB								602			693	769				
	160				270	225	460	254	703		280	793	967		448	536	430
CSA 40-145	80	2"	2"	80	167	139	254	125	373	90	220	453	567	133	353	384	298
	90				173			140	420		230	501			363	394	
	100				159	140	314	160	452		240	532	637		373	404	
	112				166			190	473		230	553			363	394	
CSA 40-175	80	2"	2"	80	168	141	254	125	375	95	220	455	569	150	370	384	298
	90				175			140	422		230	502			380	394	
	100				161	142	314	160	454		240	534	639		390	404	
	112				168			190	475		230	555			380	394	
	132 M-S				180	164	389	216	537		255	617	682		405	472	370
	132 MB								581			661	737				
	160				243	208	460	254	686		280	766	937		430	536	430
CSA 40-210	80	2"	2"	80	168	141	254	125	375	115	235	455	569	160	395	399	298
	90				175			140	422			502					
	100				161	142	314	160	454		240	534	639		400	404	
	112				168			190	475		235	555			395	399	
	132 M-S				180	164	389	216	537		250	617	682		410	467	370
	132 MB								581			661	737				
	160				243	208	460	254	686		280	766	937		440	444	430
CSA 40-260	90	2"	2"	100	217	163	254	140	444	145	260	544	611	172	432	440	298
	100				203	164	314	160	476			576	681				
	112				210			190	497			597					
	132 M-S				221	185	389	216	558			658	724			489	370
	132 MB								602			702	779				
	160				280	225	460	254	703		280	803	978		452	536	430
	180				195		600	279	785		305	885	1094		477	637	420
CSA 50-145	80	2"1/2	2"	80	169	141	254	125	374	95	220	454	569	139	359	384	298
	90				175			140	422		230	502			369	394	
	100				161	142	314	160	454		240	534	639		379	404	
	112				168			190	475		230	555			369	394	
	132 M-S				180	164	389	216	537		255	617	682		394	472	370
CSA 50-175	80	2"1/2	2"	80	169	141	254	125	374	100	230	454	569	154	384	394	298
	90				175			140	422			502					
	100				161	142	314	160	454		240	534	639		394	404	
	112				168			190	475		230	555			384	384	
	132 M-S				180	164	389	216	537		255	616	682		409	472	370
	132 MB								581			661	737				
	160				243	208	460	254	686		280	766	937		434	536	430

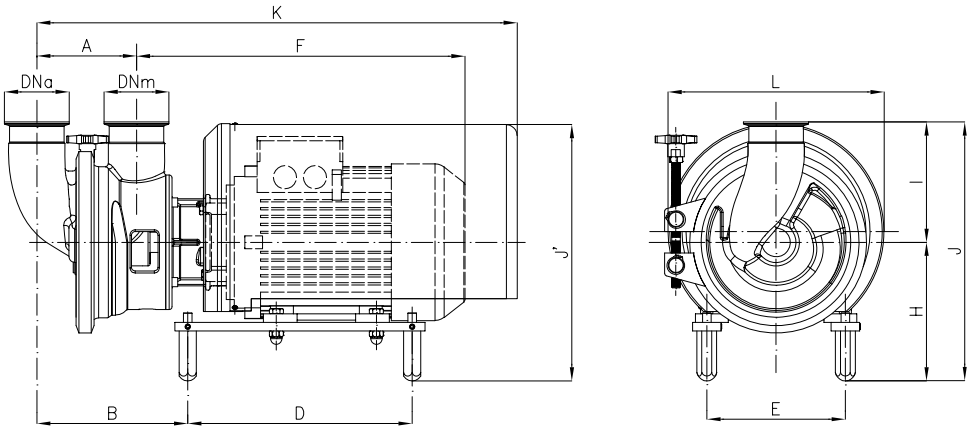
CSA OVERALL DIMENSIONS



Dimensions not binding - DN = "Clamp" ISO 2852 connections, with standard IEC/EN motors

Pumps	IEC motors size:	DNa	DNm	A	B	C	D	E	F	G	H	K	K'	I	J	J'	L
CSA 50-210	90	2"1/2	2"	80	175	141	254	140	422	120	240	502	569	168	408	412	298
	100				161	142	314	160	454			534	639				
	112				168			190	475			555					
	132 M-S				180	164	389	216	537		250	617	682		418	467	370
	132 MB								581			661	737				
	160				243	208	460	254	686		280	766	937		448	536	430
	180				173	223	600	279	783		305	863	1072		473	637	420
CSA 50-260	100	2"1/2	2"	90	194	165	314	160	477	145	270	567	672	179	449	454	298
	112				201			190	498			588					
	160				273	228	460	254	706		280	796	970		459	536	430
	180				188		600	279	788		305	878	1087		484	637	420
CSA 65-145	80	3"	3"	79	172	145	254	125	379	112	245	458	572	138	383	409	298
	90				178			140	426			505					
	100				164	146	314	160	458			537	642				
	112				171			190	479			558					
	132 M-S				183	168	389	216	541		255	620	685		393	472	370
	132 MB								585			664	740				
	160				246	212	460	254	690		280	769	940		418	536	430
CSA 65-175	90	3"	3"	80	178	144	254	140	425	120	255	505	572	138	393	409	298
	100				164	145	314	160	457			537	642				
	112				171			190	478			558					
	132 M-S				183	167	389	216	540			620	685			472	370
	132 MB								584			664	740				
	160				246	211	460	254	689		280	769	940		418	536	430
	180				174	224	600	279	784		305	864	1073		443	637	420
CSA 65-210	90	3"	3"	90	212	168	254	140	449	135	265	539	605	158	423	429	298
	100				198	169	314	160	481			571	676				
	112				205			190	502			592					
	160				276	231	460	254	709		280	799	974		438	536	430
	180				191		600	279	791		305	881	1090		463	637	420
CSA 65-260	100	3"	3"	100	207	168	314	160	480	155	285	580	685	193	478	449	298
	112				214			190	501			601					
	132 M-S				226	190	389	216	563			663	728			502	370
	132 MB								607			707	783				
	160				285	230	460	254	708			808	983			541	430
	180				200		600	279	790		305	890	1099		498	637	420
CSA 80-175	100	4"	3"	100	231	174	315	160	486	139	275	586	691	164	439	439	298
	112				220			190	507			607					
	132 M-S				231	195	389	216	568			668	734			492	370
	160				291	236	460	254	714		280	814	989		444	536	430
	180				206		600	279	796		305	896	1105		469	637	420
CSA 80-210	100	4"	3"	100	210	171	314	160	483	145	285	583	688	164	449	449	298
	112				217			190	504			604					
	132 M-S				229	193	389	216	566			666	731			502	370
	160				288	233	460	254	711			811	986			541	430
	180				203		600	279	793		305	893	1102		469	637	420
CSA 80-260	100	4"	3"	100	210	171	314	160	483	165	300	583	688	209	509	464	298
	112				217			190	504			604					
	132 M-S				229	193	389	216	566			666	731			517	370
	132 MB								610			710	786				
	160				288	233	460	254	711			811	986			556	430
CSA 100-210	132 M-S	5"	4"	111	246	200	389	216	573	161	305	683	750	214	519	522	370
	180				221	240	600	279	800			911	1120			634	420
CSA 100-260	132 MB	5"	4"	115	246	195	389	216	612	186	325	727	803	216	541	542	370
	160				305	235	460	254	713			828	1004			581	430
	180				220		600	279	795			910	1118			657	420

ASH OVERALL DIMENSIONS



Dimensions not binding - DN = "Clamp" ISO 2852 connections, with standard IEC/EN motors

Pumps		kW	DNa	DNm	A	B	D	E	F	H	K	I	J	J'	L
ASH 40	1450 r.p.m.	1,1 1,5	1" 1/2	1" 1/2	90,5	183	245	140	410	210	580	148,5	358,5	358	240
		2,2				148,5	314	160	431	220	646		368,5	385	300
ASH 50		2,2	2"	2"	118	176,5	314	160	432	220	674	148,5	368,5	385	300
		4				183,5		190	453	230			378,5	395	
ASH 60		4	3"	3"	139,5	211	314	190	460	230	672,5	168,5	398,5	395	300
		5,5				215	390	216	512	250	749,5		418,5	469	372
ASH 65		5,5 7,5	3"	3"	139,5	215	390	216	512	250	749,5	168,5	418,5	469	372
		15				267	460	254	650	280	914		448,5	536	429

CSF Inox S.p.A. Strada per Bibbiano, 7 - 42027 Montecchio E. (RE) - ITALY EU
Ph +39.0522.869911 r.a. - Fx +39.0522.865454 / 866758 - csfitalia@csf.it - www.csf.it
Export Department • Commercial Étranger • Comercial Extranjero
Ph +39.0522.869922 - Fx +39.0522.869841 - csfexport@csf.it - www.csf.it

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