



EBARA



ISO 9001 : 2000
Lic no: QEC22090

Quality
Endorsed
Company



CN 8001-6

HORIZONTAL SPLIT CASING PUMP

Model **CSA/CNA**

60Hz



HORIZONTAL SPLIT CASING PUMP

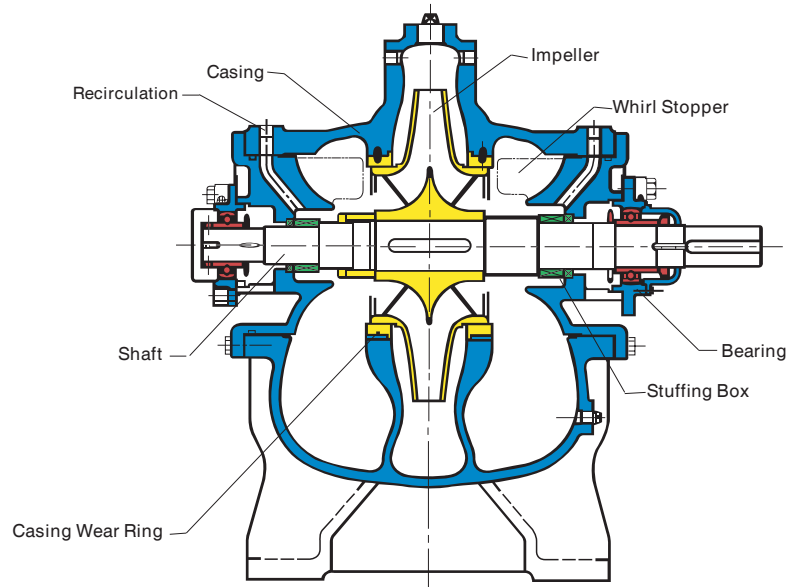
■ FEATURES

1. Very Compact design for ease of installation and permits minimum maintenance.
2. Axially split casing allows the easy removal of the top casing for inspection and service.
3. A wider range of performance with head up to 160 m.
4. High speed drives and vertical mount available.
5. Anti-corrosion materials used on the rotating parts.
6. High quality sealed and cartridge type bearing units provide high durability.
7. High allowable working pressure can ensure stable running.
8. Mechanical seal for easy maintenance.

■ APPLICATIONS

1. Industrial use
2. Water supply
3. Hot and cold water supply
4. For swimming pool
5. Sprinkling
6. Air-conditioning
7. Fi re-fighting application

■ SECTIONAL VIEW



Casing

The rotating assembly can be removed without disturbing connected piping as the suction and discharge flanges are integrally casted into the lower casing half. Casing is high pressure designed and able to withstand against water surge.

Recirculation

Recirculation pipe lines for self-flushing are provided.

Impeller

The hydraulic matching of casing and impeller minimizes axial thrust and recirculation, ensuring high efficiency, low NPSH required and quiet performance over the entire range of operation. Bronze material is standard.

Whirl Stopper

The cast whirl stopper direct flow into the impeller eye for more even suction distribution. The gradually accelerated inlet flow has low tendency for velocity distortion, ensuring a quiet operation.

Shaft

316 stainless steel material ensures long life against corrosion and wear. Short support span of bearing lengthen bearing life.

Casing Wear Ring

Replaceable bronze casing wear rings are locked to prevent rotation. It protects the pump casing from wear, permits simple maintenance of proper running clearances to reduce maintenance costs and maintain high operating efficiency.

Bearing

Replenishable grease lubricated deep-groove bearing units with low friction loss has a long life can be easily inspected and replaceable. Auto alignment structure absorbs shaft deflection.

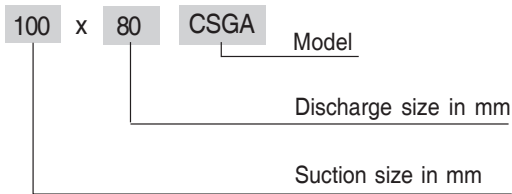
Stuffing Box

John Crane type mechanical seal is standard, easily obtainable in the market and replaceable without disturbing piping. Gland packing is available as option.

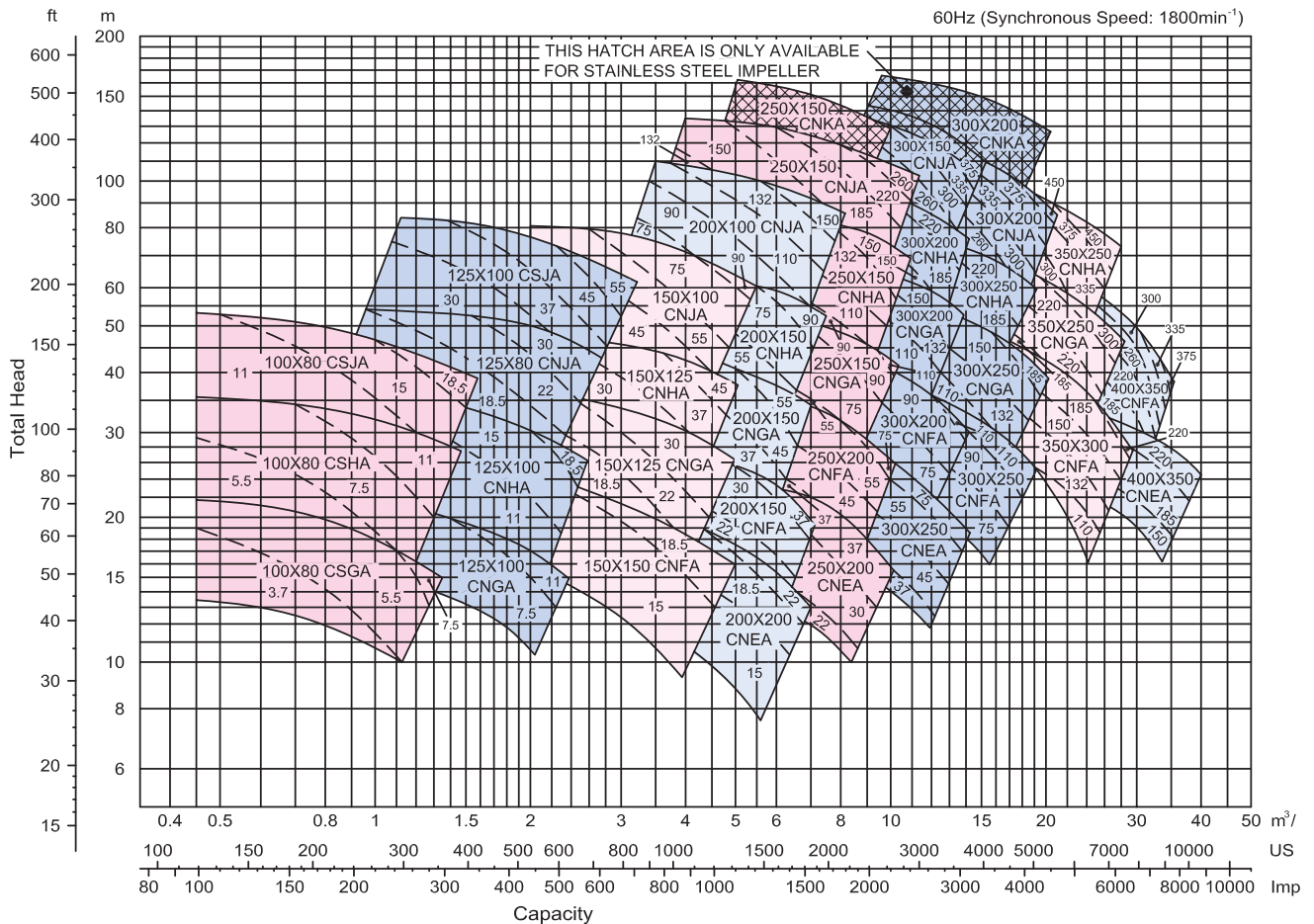
SPECIFICATION

Description		Standard	Optional	
Model		CSA/CNA.		
Liquid Handled	Type of liquid	Clean water, Industrial Water, River Water		
	Temperature	Below 80°C (176°F)	81°C-120°C (177°F-248°F) (only applicable for Mechanical Seal Models)	
Max. Working Pressure		16 bar (16.3 kgf/cm ²)		
Construction	Shaft Seal	Mechanical Seal	Gland Packing	Mechanical Seal
	Bearing	Ball Bearing		
	Lubrication	Grease		
Material	Casing	Cast Iron	Ductile Cast Iron (FCD)	
	Impeller	Bronze (except 250x150 CNKA, 300x150 CNJA, and 300x200 CNKA)	SCS 13, SCS 14	
		SCS 13 for 250x150 CNKA, 300x150 CNJA, and 300x200 CNKA		
	Shaft	SUS 316 (only applicable for 4-poles)	SUS 403	SUS304
	Shaft Sleeve		Bronze	Bronze
Flange	Suction	JIS 16 KRF		
	Discharge	JIS 16 KRF		
Accessories				
Standard		Air vent piping, M.Seal or G. Packing, flushing water piping, Lift bolts. Drain piping (only applicable for G. Packing models)		
Option		Common base, Anchor bolts, Shaft coupling, Coupling guard		

MODEL CODE



SELECTION CHART



■ PUMP (Standard : Mechanical Seal type)

Dimension - Flange

D mm	f mm	e mm	g mm	t1 mm	t mm	n	h mm
80	200	160	135	2	24	8	23
100	225	185	160	2	26	8	23
125	270	225	195	2	26	8	25

Dimension - Pump

Model	Motor	Size		Pump									Motor				Common Base								Total			
	kW	Ds	Dd	A	B	E	F	G	H	I	Y	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	n-Fb	wt kg	t	L	wt kg
100 x 80 CSGA	3.7	100	80	221	250	270	240	169	140	140	70	143	112M	200	191.5	42	411	170	730	430	150	350	300	4-M16	48	3	865.5	233
	132S												239	215	62	770			470	52					928		254	
	132M												258	234	77	810			510	52					966		272	
100 x 80 CSHA	5.5	100	80	221	250	280	220	185	150	160	70	165	132S	239	215	62	411	170	770	470	150	350	300	4-M16	49	3	928	276
	132M												258	234	77	810			510	58					966		294	
	160M												323	285	115	900			550	58					1082		338	
100 x 80 CSJA	11	100	80	221	250	280	230	202	160	180	70	200	160M	323	285	115	411	170	900	550	175	350	300	4-M16	58	3	1082	373
	160L												345	307	132	940			590	78					1126		410	
	180MC												351.5	320.5	172	970			620	82					1146		454	
125 x 100 CSJA	30	125	100	247	325	350	280	263	200	230	80	280	200LC	395.5	374.5	278	516	245	1190	840	175	460	400	4-M20	116	4	1346	674
	37												225SC	432	384	327			1220	790					121		1392	728
	45												225MC	444.5	396.5	351	1240	810	152	1417	783							
	55												250SC	463.5	419	475	1260	830	162	1459	917							

Unit: mm, unless otherwise stated

Dimension - Flange


D mm	f mm	e mm	g mm	t1 mm	t mm	n	h mm
80	200	160	135	2	24	8	23
100	225	185	160	2	26	8	23
125	270	225	195	2	26	8	25
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27
300	480	430	395	3	36	16	27
350	540	480	440	3	38	16	33
400	605	540	495	3	42	16	33

Dimension - Pump

Model	Motor		Size		Pump							Motor				Common Base								Total													
	kW	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	n-Fb	wt kg	t	L	wt kg										
300 x 150 CNJA	260	300	150	382	530	520	405	384	250	335	785	315CB	741	735	1660	720	315	2060	3x570	175	710	640	8-M22	332	4	2393	2777										
	300											355AB	779	801	2000				2140	3x570	215	830		750		408	2497	3193									
	335											355AB	779	801	2000				220	830	750	8-M24		408		2497	3193										
	375											355CB	874	896	2700									2330		3x630	446	2687	3931								
	450											400AB	850	865	2900									2270		3x610	431	2632	4116								
300 x 250 CNFA	75	300	250	335	470	495	405	306	250	260	570	250MC	482.5	438	550	665	305	1510	2x580	175	580	510	6-M22	206	4	1730	1326										
	90											280SC	544	478	660				1580					2x615		226	1831	1456									
	110											280MC	569.5	502.5	720				1630					2x640		237	1881	1527									
300 x 250 CNGA	110	300	250	360	500	495	405	313	250	260	620	280MC	569.5	502.5	720	665	305	1660	2x655	175	620	550	6-M22	239	4	1936	1579										
	132											315SC	589	527	920				1680					2x665		243	1980	1783									
	150											315MC	614.5	552.5	1030				1730					2x690		252	2031	1902									
	185											315MB	614.5	552.5	1070														252	2031	1942						
300 x 250 CNHA	185	300	250	360	500	495	405	337	275	295	615	315MB	614.5	552.5	1070	690	305	1730	2x690	175	680	610	6-M22	256	4	2031	1941										
	220											315AB	666	660	1470				1880					2x725		215	710	640	308	5	2191	2393					
300 x 200 CNJA	260	300	200	382	530	525	415	379	275	320	860	315CB	741	735	1660	720	315	2060	3x570	175	710	640	8-M22	332	5	2393	2852										
	300											355AB	779	801	2000				2140					3x570		215	830	750	408	2497	3268						
	335											355AB	779	801	2000				220					890		810	8-M24	408	2497	3268							
	375											355CB	874	896	2700													2330	3x630	446	2687	4006					
	450											400AB	850	865	2900													2270	3x610	431	2632	4191					
300 x 200 CNKA	375	300	200	415	585	570	475	436	290	380	1070	355CB	874	896	2700	782	350	2420	3x660	220	830	750	8-M24	494	5	2775	4264										
	450											400AB	850	865	2900				2360					3x640		481	2720	4451									
	520											450MB	880	887	3200				2380					3x630		503	2772	4773									
	600											450AB	975	982	4000				2570					3x680		544	2962	5614									
												110	280MC	569.5	502.5				720					770		340	1730	2x690	175	760	690	6-M22	285	4	1992	1805	
132	315SC	589	527	920	1740	2x695	284	2036	2004																												
150	315MC	614.5	552.5	1030	1790	2x720	295	2087	2125																												
185	315MB	614.5	552.5	1070	295	2087	2165																														
220	315AB	666	660	1470	1940	2x755	215	349	5	2247	2619																										
350 x 250 CNGA	185	350	250	386	530	560	450	350	310	303	790	315MB	614.5	552.5	1070	770	340	1790	2x680	215	760	690	6-M22	295	4	2087	2155										
	220											315AB	666	660	1470				1940					2x755		349	2247	2609									
	260											315CB	741	735	1660				2090					3x580		175	8-M22	381	5	2397	2831						
	300											355AB	779	801	2000				820					350		2170	3x580	215	830	750	8-M24	462	2501	3252			
350 x 250 CNHA	300	350	250	414	560	560	440	373	315	330	845	355AB	779	801	2000	820	350	2200	3x590	215	830	750	8-M24	465	5	2559	3310										
	335											355AB	779	801	2000				2390					3x650		220	509	2749	4054								
	375											355CB	874	896	2700				2350					3x640		215	890	810	496	2694	4241						
	450											400AB	850	865	2900				802					380		1900	2x735	215	760	690	6-M22	313	4	2222	2373		
150	315MC	614.5	552.5	1030	313	2222	2413																														
185	315MB	614.5	552.5	1070	2050	3x550	200	8-M22	371	5	2382	2871																									
220	315AB	666	660	1470					371		2382	2871																									
400 x 350 CNEA	185	400	350	451	600	570	470	355	320	320	1030	315MB	614.5	552.5	1070	802	380	1890	2x730	215	760	690	6-M22	312	4	2195	2417										
	220											315AB	666	660	1470				2040					3x550		370	2355	2875									
	260											315CB	741	735	1660				2190					3x600		195	8-M22	402	5	2505	3097						
	300											355AB	779	801	2000													402		2505	3097						
	335											355AB	779	801	2000				852					390		2270	3x610	220	830	750	8-M24	488	5	2609	3523		
	375											355CB	874	896	2700												2460					3x660		240	535	2799	4270

Unit: mm, unless otherwise stated

All specification subject to change without prior notice.

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