



Horizontal Split Casing Pump

Type CSA/CNA

APPLICATIONS

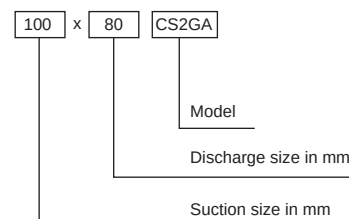
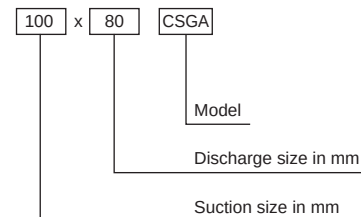
- Water supply
- Hot and cold water circulation
- For cooling tower
- Irrigation
- Industrial use
- Drainage
- Sprinkling
- Air-conditioning
- For swimming pool

FEATURES

- Very compact design for easy installation and permits minimum maintenance.
- Axially split casing allows the easy removal of the top casing for inspection and service.
- A wider range of performance with head up to 150m.
- High speed drives and vertical mount available.
- Anti-corrosion materials used on the rotating parts.
- High quality sealed and cartridge type bearing units provide high durability.
- High allowable working pressure can ensure stable running.
- Mechanical seal for easy maintenance.



4 Poles



SPECIFICATIONS

Description		Standard	Optional	
Model		CSA/CNA		
Liquid handled	Type of liquid	Clean water, industrial water, river water		
	Temperatures	Below 80°C (176°F)	81°C-120°C (177°F~248°F) (only applicable for Mechanical Seal Models)	
Max. Working Pressure		16 bar (16.3kgf/cm²)		
Construction	Shaft Seal	Mechanical Seal	Gland Packing	
	Bearing	Ball Bearing		
	Lubrication	Grease		
Material	Casing	Cast Iron	Ductile Cast Iron (FCD)	
	Impeller	Bronze (except 300 x 200 CNKA)	SCS 13, SCS 14	
		SCS 13 for 300 x 200 CNKA		
	Shaft	SUS 316	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		

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

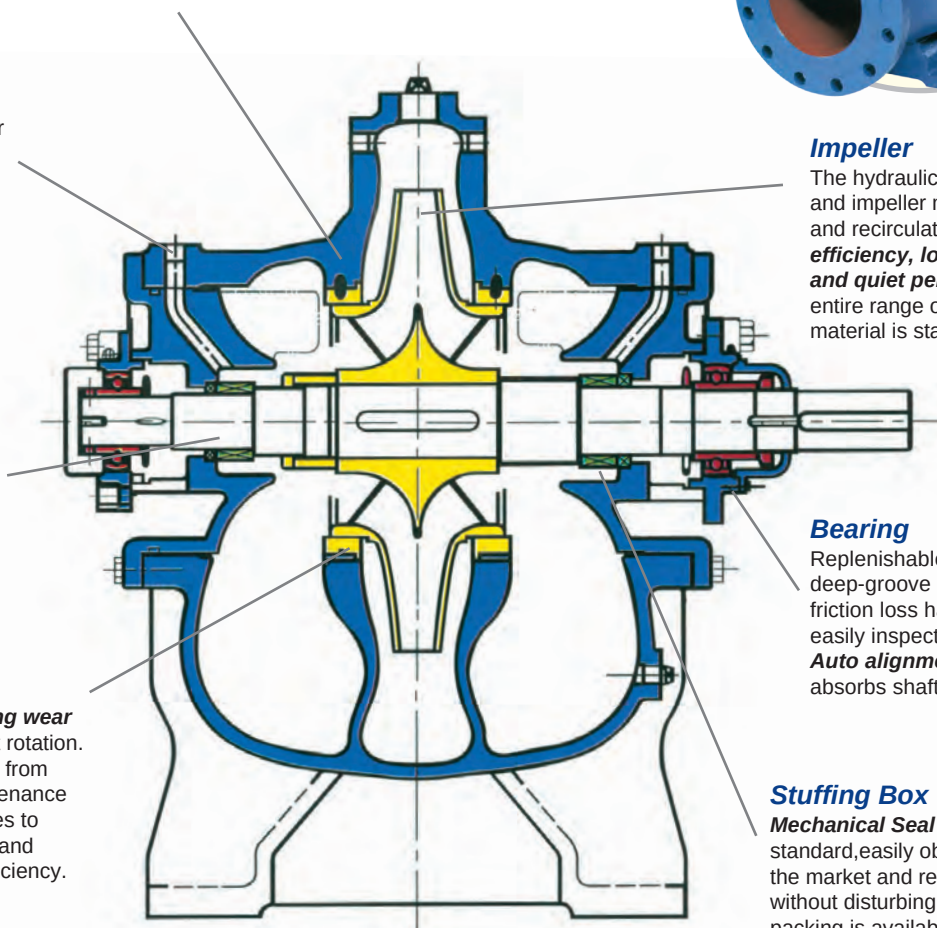
Recirculation pipe lines for self-flushing are provided.

Shaft

Stainless steel material ensures long life against corrosion and wear. Short support span of bearing prolong 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 enhance high operating efficiency.



Impeller

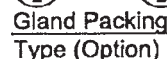
The hydraulic matching of casing and impeller minimizes axial thrust and recirculation, ensuring **high efficiency, low NPSH required and quiet performance** over the entire range of operation. Bronze material is standard.

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

Mechanical Seal is standard, easily obtainable in the market and replaceable without disturbing piping. Gland packing is available as option.



Mechanical Seal with
Shaft Sleeve
(Option)

No.	Part Name	Material	Qty	
004	Casing Upper Half	FC250	1	
006	Casing Lower Half			
011-1	Side Cover			
011-2	Side Cover			
021	Impeller	BC6		
031	Shaft	316 Stainless Steel		
039-1	Impeller Key			
039-2	Coupling Key			
041	Impeller Nut	BC6		
051-1	Bearing Unit	FC200		
051-2	Bearing Unit			

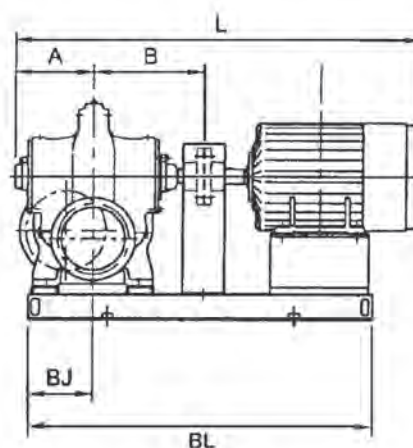
No.	Part Name	Material	Qty
053-1	Bearing Cover	FC200	1
053-2	Bearing Cover		
093-1	Deflector (CP Side)	Rubber	
093-2	Deflector (CCP Side)		
107	Casing Water Ring	BC6	2
111-1	Mechanical Seal	-	1
111-2	Mechanical Seal	-	
117-1	Gasket (Casing)	V#6500	
129	Bearing Nut	SS400	
136	Bearing Washer		
156	Lock Pin	SUS304	2
291	Grease Nipple	C3604BD-F	

No.	Part Name	Material	Qty
040-1	Shaft Sleeve (CP Side)	BC6	1
040-2	Shaft Sleeve (CCP Side)	BC6	

No.	Part Name	Material	Qty
117-2	Sleeve Gasket (CP Side)	V#6500	1
117-3	Sleeve Gasket (CCP Side)	v#6500	

No.	Part Name	Material	Qty
124	Gland Bolt	C3604BD-F	4
018-1	Bearing Support (CP Side)	FC200	1
018-2	Bearing Support (CCP Side)		
042-1	Shaft Sleeve (CP Side)	BC6	1
042-2	Shaft Sleeve (CCP Side)		

No.	Part Name	Material	Qty
091-1	Gland (CP Side)	BC6	1
091-2	Gland (CCP Side)		
090-1	Lantern Ring (CP Side)		
090-2	Lantern Ring (CCP Side)		
119-1	Gland Packing (CP Side)	Carbonised Fiber	5
119-2	Gland Packing (CCP Side)	Carbonised Fiber	5



Model	Motor	Size		Pump							Common Base				Total		
	kW	Ds	Dd	A	B	E	F	H	I	wt kg	BJ	BL	BW	wt kg	Ht	L	wt kg
100 x 80 CSGA	2.2	100	80	221	250	270	240	140	140	143	170	720	380	37	580	837	210
	3.7											730		37		856	222
100 x 80 CSHA	3.7	100	80	221	250	280	220	150	160	165	170	730	380	37	596	856	244
	5.5											770		38		920	268
	7.5											810		39		958	280
100 x 80 CSJA	5.5	100	80	221	250	280	230	160	180	200	170	770	380	38	613	920	303
	7.5											810		39		958	315
	11											890		43		1078	363
125 x 100 CSJA	15	125	100	247	325	350	280	200	230	280	235	1080	450	79	754	1220	517
	18.5											1080		89		1242	549
	22											1120		92		1280	577
	30											1160		96		1344	666
125 x 100 CNGA	3.7	125	100	231	350	290	250	150	150	209	170	830	380	39	592	966	290
	5.5											870		40		1030	314
	7.5											900		45		1068	330
125 x 100 CNHA	7.5	125	100	231	350	300	250	150	160	242	170	900	380	45	606	1068	363
	11											990		56		1188	418
125 x 80 CNJA	11	125	80	231	350	330	250	150	190	250	190	1010	400	60	637	1188	430
	15											1050		62		1232	470
	18.5											1060		82		1251	512
150 x 150 CNFA	7.5	150	150	262	370	330	290	180	170	253	210	970	450	69	676	1119	398
	11											1050		73		1239	446
150 x 125 CNGA	11	150	125	271	395	330	260	190	190	275	210	1070	450	77	695	1273	472
	15											1120		79		1317	512
	18.5											1130		86		1336	541
150 x 125 CNHA	18.5	150	125	262	370	350	280	190	210	270	210	1100	450	85	714	1302	535
	22											1140		87		1340	562
	30											1180		95		1404	655
150 x 100 CNJA	30	150	100	271	395	380	290	190	240	330	235	1230	500	98	775	1438	718
	37											1260		106		1481	756
	45											1290		108		1506	796
200 x 200 CNEA	7.5	200	200	263	370	355	300	190	190	270	235	990	450	74	714	1120	420
	11											1070		78		1240	468
	15											1120		80		1284	508
200 x 150 CNFA	15	200	150	263	370	355	285	190	190	280	235	1120	450	80	715	1284	518
	18.5											1130		91		1303	551
200 x 150 CNGA	18.5	200	150	263	370	355	285	200	210	310	235	1130	450	91	736	1303	581
	22											1160		93		1341	608
	30											1210		97		1405	697
	37											1240		105		1448	735
200 x 150 CNHA	30	200	150	282	395	375	295	200	230	355	235	1230	450	98	774	1449	743
	37											1260		106		1492	781
	45											1290		108		1517	821
	55											1310		143		799	1554
200 x 100 CNJA	45	200	100	305	450	420	335	200	270	445	260	1370	500	117	895	1595	920
	55											1390		155		1632	1120
	75											1430		159		1670	1184
	90											1500		179		1766	1324
250 x 200 CNEA	15	250	200	273	395	395	315	210	210	360	260	1170	500	90	784	1319	608
	18.5											1180		103		1338	643
	22											1210		107		1376	672
250 x 200 CNFA	22	250	200	282	395	395	315	210	210	380	260	1210	500	107	788	1385	692
	30											1260		109		1449	779
	37											1290		114		1492	814
250 x 150 CNGA	37	250	150	282	395	395	315	220	240	415	260	1290	500	114	837	1492	849
	45											1310		115		1517	888
	55											1330		153		867	1554
250 x 150 CNHA	55	250	150	315	450	430	325	220	260	500	260	1390	560	155	885	1642	1175
	75											1430		159		1680	1239
	90											1500		179		1776	1379

Model	Motor	Size		Pump							Common Base				Total		
	kW	Ds	Dd	A	B	E	F	H	I	wt kg	BJ	BL	BW	wt kg	Ht	L	wt kg
250 x 150 CNJA	75	250	150	350	500	470	355	220	300	605	295	1520	580	172	982	1765	1357
	90											1580	184	1861		1489	
	110											1640	188	1912		1592	
	132											1650	215	1960		1850	
	150											1700	220	2011		1855	
250 x 150 CNKA	110	250	150	382	530	505	430	290	345	835	300	1680	640	192	1073	1988	1832
	132											1700		220		2032	1980
	150											1750		235		2083	2105
	185											1750		235		2083	2140
	220											1910		700		270	2413
300 x 250 CNEA	22	300	250	302	415	445	355	235	235	435	295	1270	600	141	890	1425	781
	30											1310		144		1489	869
	37											1340		149		1532	904
300 x 200 CNFA	37	300	200	315	450	445	355	235	235	490	295	1370	600	160	896	1580	970
	45											1400		162		1605	1010
	55											1420		167		1642	1177
300 x 200 CNGA	55	300	200	315	470	445	355	250	270	520	295	1440	640	167	936	1662	1207
	75											1480		171		1770	1271
	90											1550		183		1796	1403
300 x 200 CNHA	90	300	200	350	500	465	365	250	290	625	295	1580	640	184	968	1861	1509
	110											1640		188		1912	1613
	132											1650		215		1960	1760
	150											1700		220		2011	1875
300 x 150 CNJA	150	300	150	382	530	520	405	250	335	785	300	1750	640	235	1050	2083	2050
	185											1750		235		2083	2090
	220											1910		270		2413	2505
	260											2060	700	280		2563	2725
	300											2060		280		2563	2865
300 x 250 CNFA	37	300	250	335	470	495	405	250	260	570	295	1400	600	160	942	1620	1050
	45											1410		162		1645	1090
	55											1440		167		1682	1257
	75											1480	640	171		1720	1321
300 x 250 CNGA	75	300	250	360	500	495	405	250	260	620	295	1520	580	172	949	1775	1372
	90											1580	640	184		1871	1504
	110											1640		188		1922	1608
300 x 250 CNHA	110	300	250	360	500	495	405	275	295	615	295	1640	640	189	998	1922	1804
	132											1650		216		1970	2061
	150											1700		221		2021	2066
300 x 200 CNJA	150	300	200	382	530	525	415	275	320	860	300	1750	640	192	1045	1988	1827
	185											1750		220		2032	1975
	220											1910		235		2083	2100
	260											2060	700	235		2083	2140
	300											2060		270		2413	2555
300 x 200 CNKA	220	300	200	415	585	570	475	290	380	1070	355	2030	790	300	1171	2501	2820
	260											2180		315		2651	3045
	300											2180		315		2651	3185
	335											2380		330		2851	3300
	370											2240	840	320	1221	2754	3540
	450											2620		350		3130	3920
350 x 300 CNFA	90	350	300	386	530	560	450	310	310	800	355	1700	790	250	1120	1927	1750
	110											1750		265		1978	1865
	132											1770		270		2026	2100
350 x 250 CNGA	132	350	250	386	530	560	450	310	303	790	355	1770	790	270	1125	2026	1980
	150											1820		285		2087	2105
	185											1820		285		2087	2145
350 x 250 CNHA	185	350	250	414	560	560	440	315	330	845	355	1850	790	290	1148	2145	2205
	220											2000		315		2474	2610
	260											2150		335		2624	2840
	300											2150		355		2624	2980
	335											2350		350		2824	3095
400 x 350 CNEA	90	400	350	451	600	570	470	320	320	1030	390	1810	790	275	1160	2062	2005
	110											1860		285		2113	2115
	132											1870		285		2161	2345
	150											1920		295		2222	2355
400 x 350 CNFA	150	400	350	439	585	625	510	305	344	1035	390	1910	790	295	1190	2195	2360
	185											1910		295		2195	2400
	220											2050		315		2524	2800