



LIQUID RING VACUUM

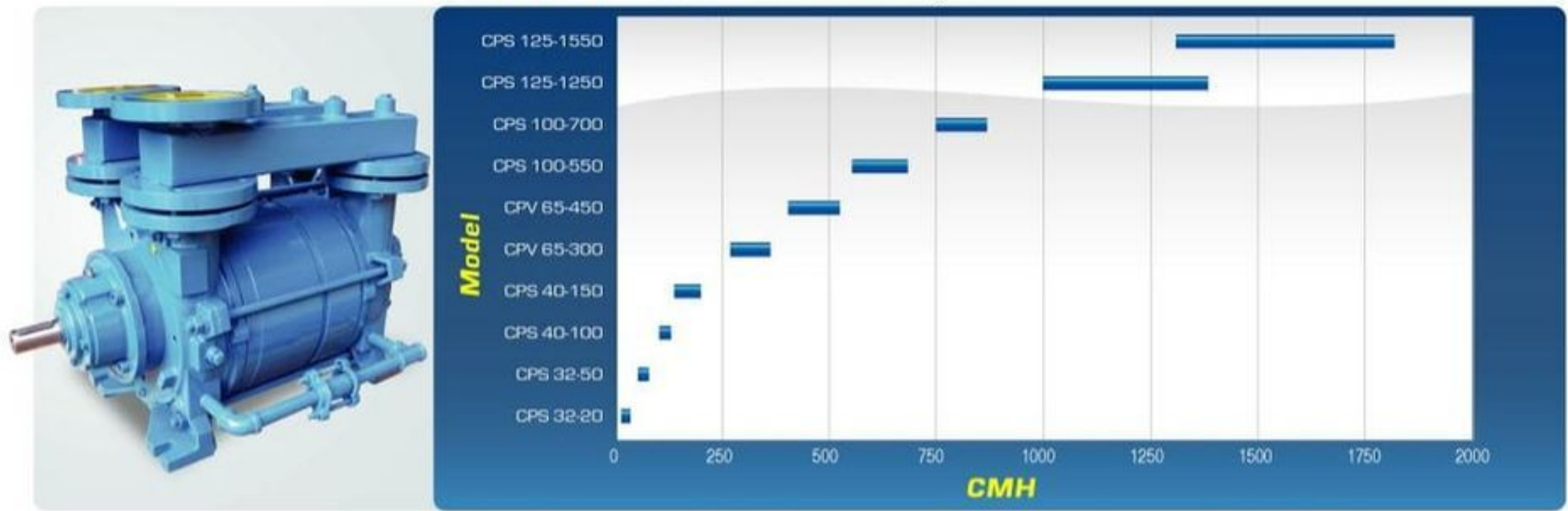
Since 1974 ISO 9001:2000 Certificated

PUMPS/COMPRESSORS



cutes Liquid Ring Vacuum Pump Products Line

CPS & CPV Series *Flat Plate Design*



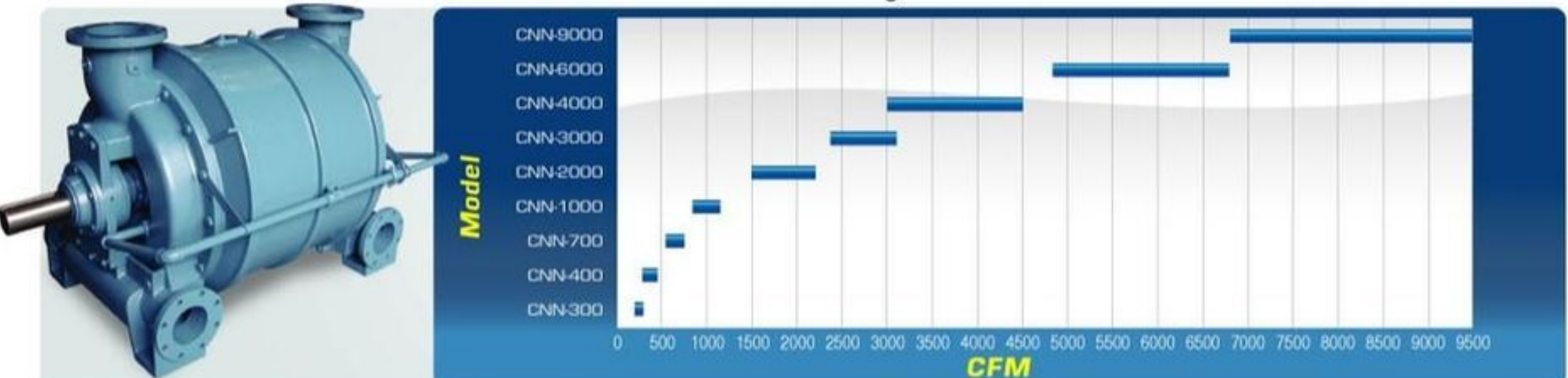
CPD Series *Flat Plate Design*



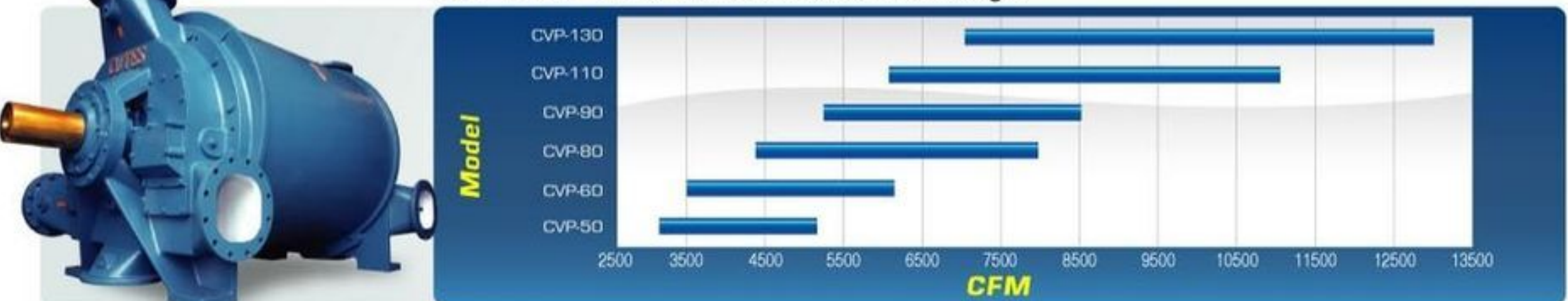
CE1 Series *Flat Plate Design*



CNN Series *Conical Cone Design*



CVP & CPV Series *Conical Cone Design*



cutes VACUUM

Features of **cutes** Vacuum pump

Rotor

High efficiency rotor with 20 blades design.

Housing

Standard design with mid-plate.
Both suction sides can be operated
at different vacuum services.

Cones

Three kinds of choose for services low,
medium and high vacuum.

01 - below 16 inHg

02 - 14 ~ 22 inHg

03 - 20 ~ 27 inHg

material and shaft seal option

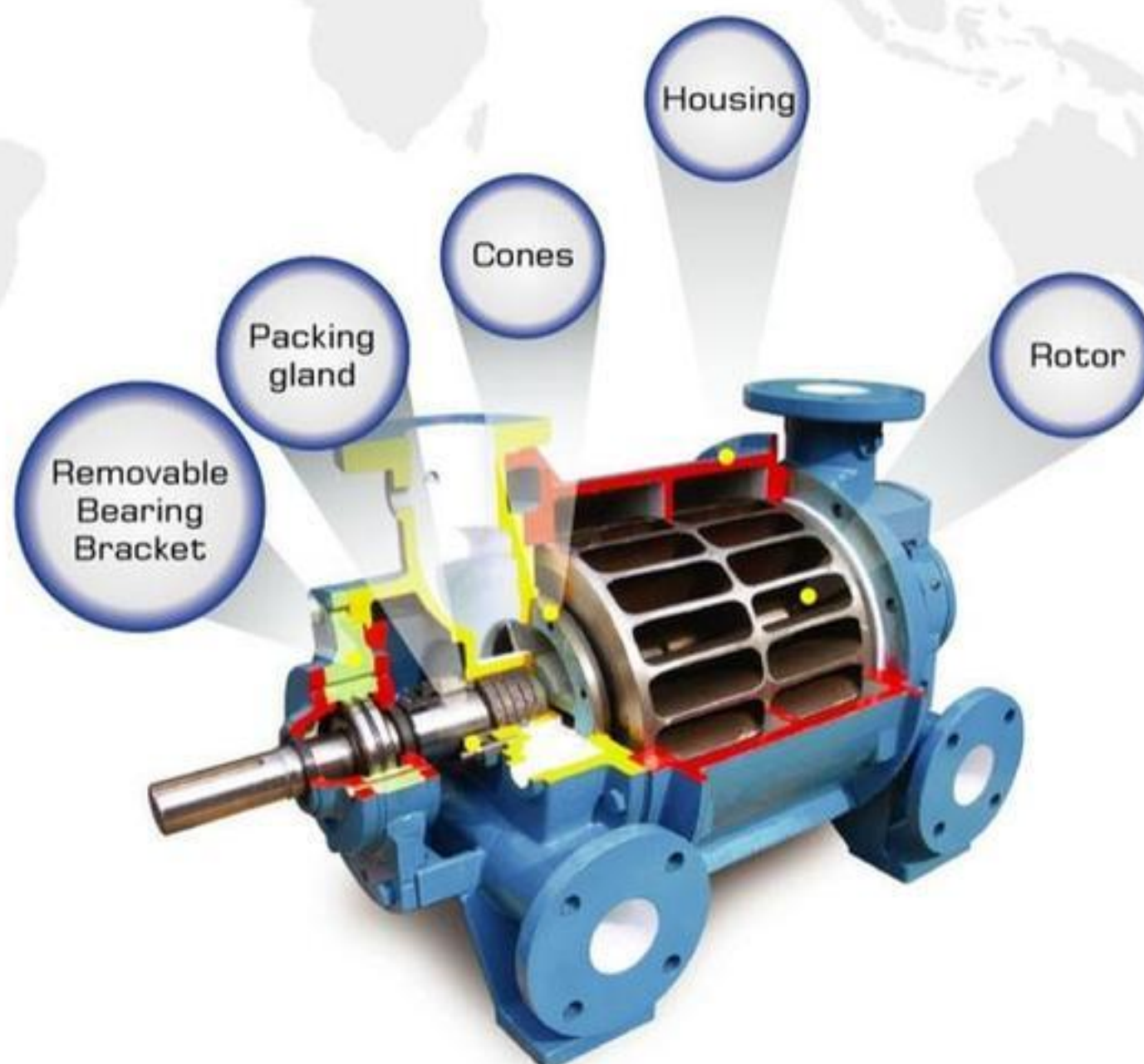
Various materials and shaft seal
can be option for different application.

Removable bearing bracket

Patent design of removable bearing bracket.
Taiwan Pat. No. : 098373

Packing Glands

Cast stainless steel material.



Before **cutes** pump shipped, we run and test each vacuum pump at our factory to make sure that it meets capacity and power consumption specification. You are welcome to certified test sheet at no extra cost.

Material Structure Code

Parts Name	FCD	STD	XVS	SS4	PVS	SS6
Cones	FC200	FC200	SCS13	SCS13	SCS14	SCS14
Head	FC200	FC200	FC200	SCS13	FC200	SCS14
Housing	FC200	FC200	SCS13	SCS13	SCS14	SCS14
Shaft	S45C	S45C	SUS410	SUS410	SUS410	316SS
Cladding Plate	/	/	304 SS	/	316SS	/
Bearing Bracket	FCD400	FCD400	FCD400	FCD400	FCD400	FCD400
Bearing Cap	FC200	FC200	FC200	FC200	FC200	FC200
Rotor	FCD400	SCS13	SCS13	SCS13	SCS14	SCS14

Material code based on JIS standard.

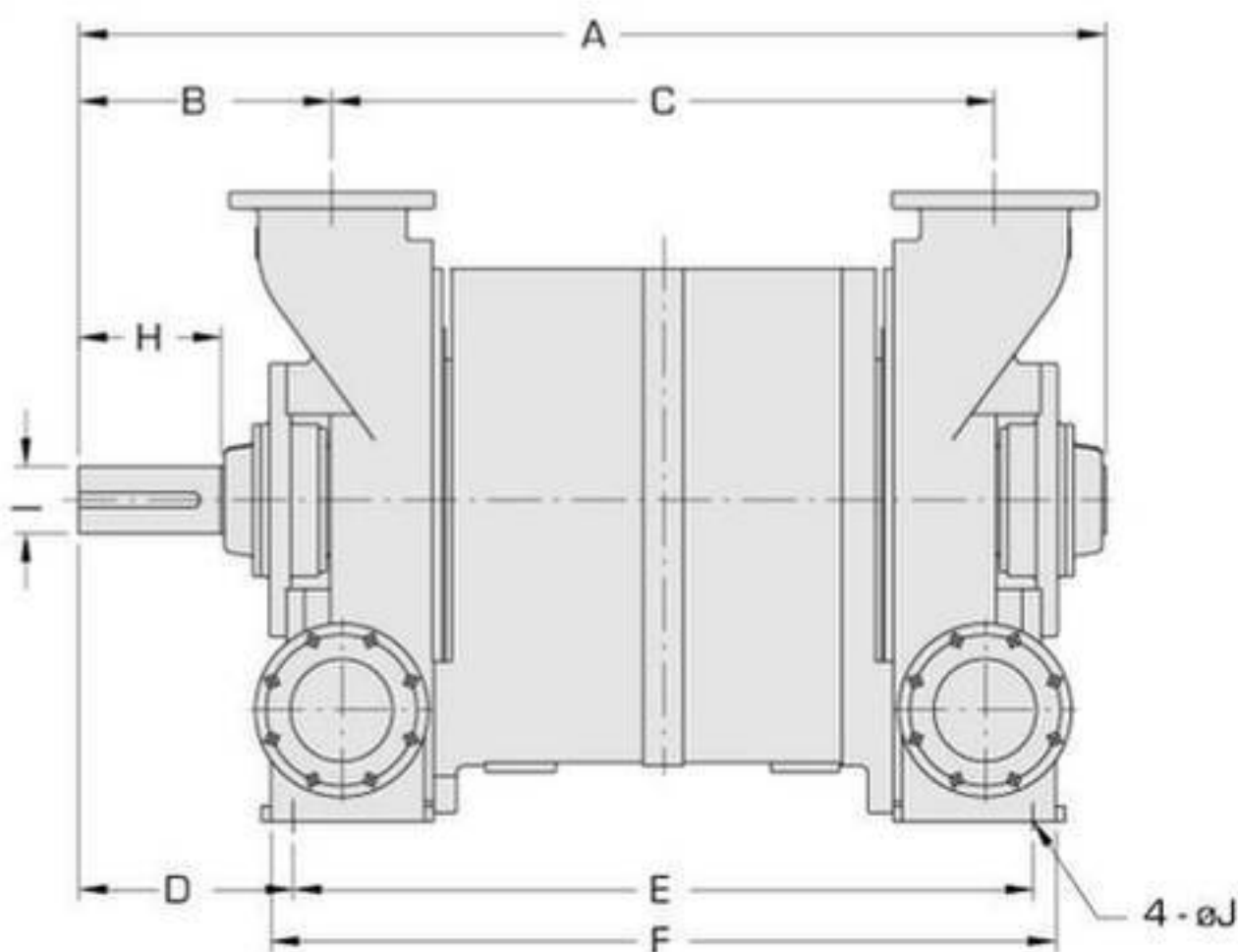
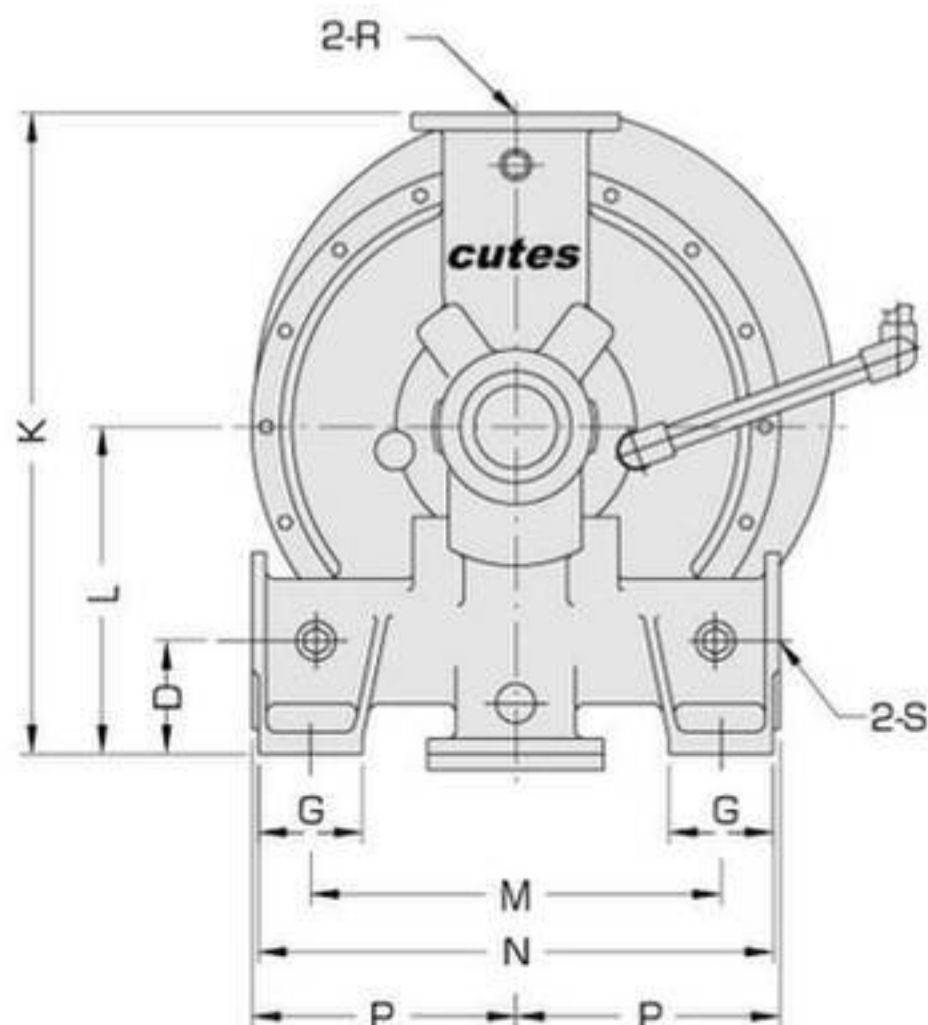
Cast Iron	JIS / FC 200 = ASTM / A48 - 30B = DIN / GGL - 200
Carbon Steel	JIS / S45C = AISI / 1045 = DIN / C 45
Ductile Iron	JIS / FCD 400 = ASTM / 60 - 40 - 18 = DIN / GGG - 40
Stainless Steel	JIS / SCS 13 = ASTM / CF - 8 = DIN / G-X6CrNi18 9 (1.4308)
	JIS / SCS 14 = ASTM/CF-8M=DIN/G-X6CrNiMo18 10(1.4408)
	JIS / SUS410 = ASTM / 410 = DIN / X10 Cr 13 (1.4006)

Model

Vacuum in-Hg (G)	4~16	14~22	20~27	Nash Model
CNN (Nash CL)	301	302	302	300
	401	402	403	400
	701	702	703	700
	1001	1002	1003	1000
	2001	2002	2003	2000
	3001	3002	3003	3000
	4001	4002	4003	4000
	6001	6002	6003	6000
	9001	9002	9003	9000
CVP (Nash 904)	50L	50M	50H	L
	60L	60M	60H	M
	80L	80M	80H	P
	90L	90M	90H	R
	110L	110M	110H	S
	130L	130M	130H	T



Local Agent Contact Information



Outline Dimension

Code Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	Weight (Kg)
CNN-300	812	241	432	252	410	460	86	102	38.1	22	406	203	216	266	78	190	165	3"	2"	145
CNN-400	902	284	448	254	508	572	117	105	41.275	22	483	229	356	406	80	229	127	3"	2.5"	220
CNN-700	1022	304	540	285	578	644	117	120	50.8	22	572	254	400	454	85	254	128	4"	3"	350
CNN-1000	1216	327	680	351	632	708	116	120	69.85	25	660	305	419	480	88	317	194	5"	4"	525
CNN-2000	1508	400	908	332	1044	1158	203	200	92.075	32	914	432	622	750	126	381	216	6"	5"	1400
CNN-3000	1733	464	1028	362	1232	1344	222	228	101.6	32	1118	533	711	864	146	444	178	8"	6"	2200
CNN-4000	2318	502	1314	413	1492	1582	305	282	133.35	32	1244	635	800	1003	203	514	219	10"	8"	3900
CNN-6000	2528	550	1428	689	1150	1644	305	282	163.513	45	1682	838	1130	1334	230	679	279	12"	10"	6500
CNN-9000	2445	591	1562	692	1360	1828	305	300	174.62	44	2057	1016	1320	1422	216	813	356	14"	12"	8800
CVP-50	2188	584	1289	645	1168	1289	184	273	127	32	1308	635	966	1067	184	673	413	10"	8"	4000
CVP-60	2391	584	1492	644	1372	1492	184	273	127	32	1308	635	966	1067	184	673	413	10"	8"	4800
CVP-80	2559	617	1654	687.5	1515	1667	248	330	177.8	44	1556	762	1118	1219	229	800	419	12"	10"	6000
CVP-90	2788	617	1883	687.5	1743	1895	248	330	177.8	44	1556	762	1118	1219	229	800	419	12"	10"	6800
CVP-110	2985	765	1835	749.5	1867	1988	318	381	190.5	44	1854	914	1168	1270	254	940	508	14"	12"	9500
CVP-130	3175	765	2013	749.5	2045	2165	318	381	190.5	44	1854	914	1168	1270	254	940	508	14"	12"	10500



cutes corp.

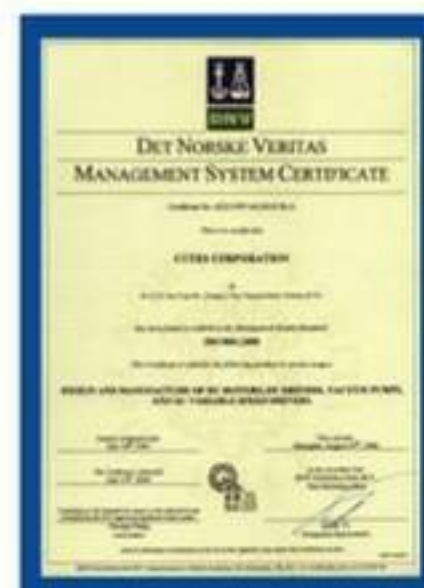
Since 1974 ISO 9001:2000 Certificated

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ISO 9001
CERTIFICATEO



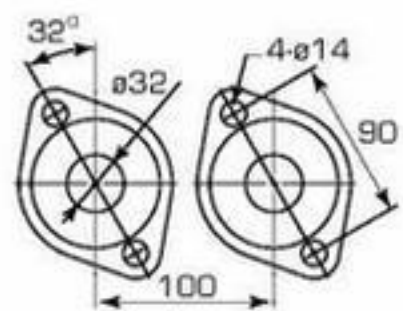
**LIQUID RING VACUUM PUMPS &
COMPRESSORS-Flat Plate Type**

Performance Table

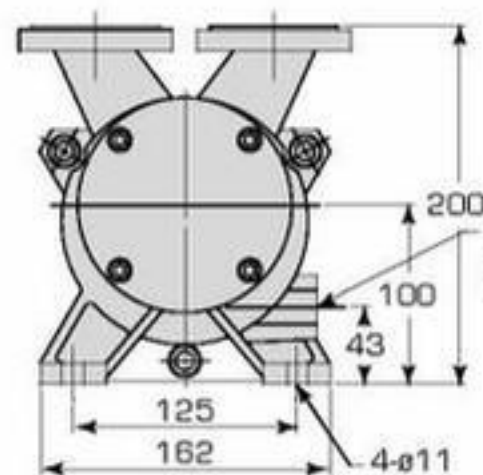
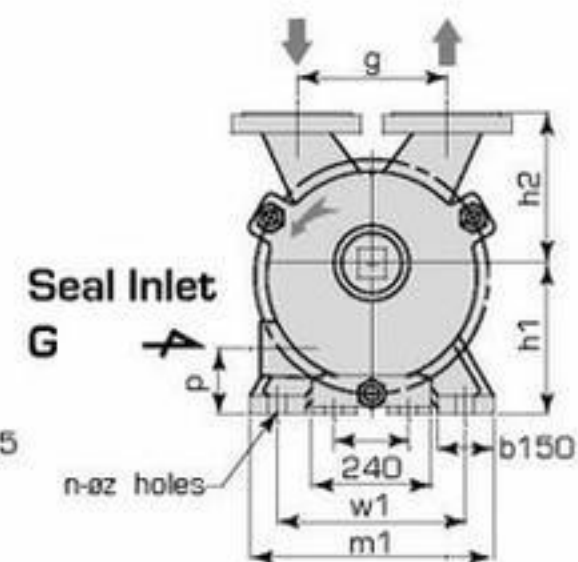
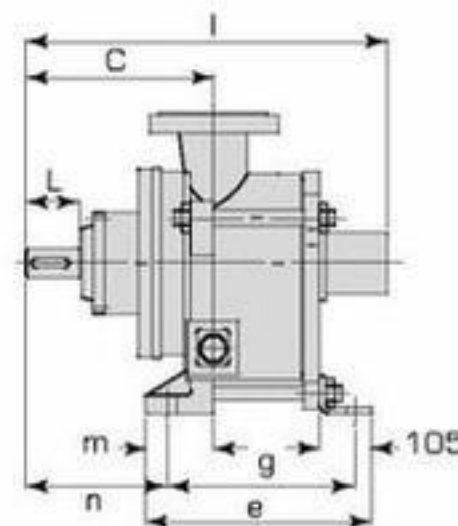
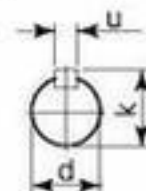
CPS / CPV - Single Stage																		
PUMP Model	Inch Hg (G)			8		12		16		20		24		25		26		Average Liquid Flow M ³ / H
	mmHg (abs)			557		455		354		252		150		125		100		
	mbar (abs)			742		607		471		336		200		167		133		
	Flange Size	RPM	HP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	
CPS 32 - 20	1 1/4"	2900	1	19	0.64	20	0.72	19	0.63	17.7	0.92	12.2	0.98	9.4	1	6	1.02	0.27
		3500	2	24	1.2	25	1.3	25	1.4	24	1.4	19	1.5	16	1.5	13	1.5	
CPS 32 - 50	1 1/4"	2900	2	46	1.1	47	1.2	45	1.4	38	1.5	24	1.65	17	1.7	8.5	1.7	0.27
		3500	3	54	1.8	58	2.0	58	2.2	55	2.4	39	2.5	32	2.5	21	2.5	
CPS 40 - 100	1 1/2"	1450	4	99	2.8	99	3.2	98	3.6	97	3.9	81	3.9	72	3.97	58	3.97	0.6
		1750	5	128	3.5	128	3.8	128	4.1	126	4.2	111	4.4	92	4.5	72	4.5	
CPS 40 - 150	1 1/2"	1450	5	145	3.1	144	3.6	143	4.2	133	4.8	94	4.7	77	4.6	51	4.4	0.7
		1750	7.5	180	4.2	180	4.8	175	5.4	163	5.8	128	6.0	105	6.0	82	6.0	
CPV 50 - 220	2"	1450	7.5	199	5.5	201	6	203	6.5	204	6.9	199	6.9	197	6.7	195	6.5	1.1
		1750	10	243	8.7	244	9.2	247	9.5	248	10	240	9.6	236	9.4	230	9	
CPV 65 - 300	2 1/2"	1450	10	279	7.2	281	7.7	283	8.4	283	8.7	280	8.4	277	8	272	7.5	1.6
		1750	15	347	11.2	349	12	350	12.6	348	13	333	12.7	323	12.5	311	12	
CPV 65 - 450	2 1/2"	1450	15	408	11	413	12	418	13	425	13.5	415	13	412	12.2	405	11.2	2.0
		1750	20	498	16.3	510	17	518	18.3	520	19	500	19	493	18.6	475	18	
CPV 100 - 550	4"	1450	20	530	13.3	548	15	551	16.3	531	17.7	471	18.8	446	18.9	400	48.9	1.8
		1750	25	641	18.6	646	20.4	651	21.5	641	22.6	580	23.2	566	23.5	510	23.8	
CPV 100 - 700	4"	1450	25	721	20.4	731	22	731	23	701	23.1	600	23.1	551	23.1	466	23.1	2
		1750	40	840	23.2	850	25.8	850	27.7	830	28.6	750	30.4	700	30.6	610	30.6	
CPS 125 - 1250	5"	880	40	961	32	981	35	1000	36	966	38	765	38	680	38	-	-	3.6
		975	50	1250	37.5	1250	38.9	1250	40.2	1200	41.5	1100	42.9	935	43	-	-	3.9
		1150	60	1394	54	1380	55	1337	56	1343	58	1148	58	1020	58	-	-	4.3
CPS 125-1550	5"	880	50	1245	42	1261	46	1301	48	1282	50	918	50	799	50	-	-	3.6
		975	60	1556	50	1556	52	1556	53	1547	55	1309	55	1173	55	-	-	4.1
		1150	75	1802	72	1802	73	1802	74	1765	75	1394	75	1275	75	-	-	4.5

CPD - Double Stages																		
PUMP Model	Inch Hg (G)			20		22.5		25		27.5		28		28.7		28.94		Average Liquid Flow M ³ / H
	mmHg (abs)			252		188		125		81.5		49		31		25		
	mbar (abs)			336		251		187		82		65		41		33		
	Flange Size	RPM	HP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	M ³ /H	BHP	
CPD 32 - 20	1 1/4"	2900	1.5	21	1.08	21.3	1.09	20.4	1.1	16.5	1.1	15	1.1	11.2	1.1	-	-	0.2
		3500	2	25.5	1.8	25.5	1.8	24.7	1.8	21.3	1.8	19.2	1.8	12.1	1.8	-	-	
CPD 32 - 45	1 1/4"	2900	2	43.4	1.66	43.5	1.69	40.5	1.7	31.5	1.73	29	1.74	18.7	1.75	-	-	0.3
		3500	3	53	2.9	53	2.5	52.7	2.4	45	2.4	39	2.4	20	2.4	-	-	
CPD 32 - 60	1 1/4"	2900	3	48.5	2.42	52.7	2.45	53.5	2.41	45	2.24	38.2	2.21	23.8	2.2	14.5	2.2	0.5
		3500	5	59	3.1	60	3.1	60	3.1	56	3.1	49.3	3.1	29	3.1	20	3.1	
CPD 40 - 110	1 1/2"	1450	4	99.5	3.83	104	3.87	104.5	3.86	95	3.8	90	3.75	64.5	3.58	50	3.5	0.5
		1750	5	119	5.0	126	5.0	126	4.8	105	4.7	93.5	4.7	71.5	4.6	54	4.5	
CPD 40 - 140	1 1/2"	1450	5	131	4.85	137.8	4.75	144	4.5	138.5	4	130	3.9	99.5	3.8	81.5	3.8	0.5
		1750	7.5	160	6.3	168	6.2	170	5.8	158	5.4	145	5.3	121	5.3	100	5.3	
CPD 40 - 190	1 1/2"	1450	7.5	178.5	6.5	182.5	6.3	189	6	189.5	5.4	177	5.2	136	5.1	102	5	0.6
		1750	10	214	8.6	226	8.3	224	7.6	219	7.1	201	7.0	150	6.8	119	6.8	
CPD 50 - 280	2"	1450	10	263	10.0	275	10.0	281	9.9	253.5	9.1	238	9	187	9	160	9	1.2
		1750	15	299	14.9	309	14.8	309	14.2	275	13.6	265	13.6	221	13.6	201	13.6	
CPD 50 - 340	2"	1450	15	326	12.7	340	12.5	345	11.8	323	11	306	10.9	233	10.9	187	11	1.5
		1750	20	371	17	386	16.9	400	16.3	371	15	350	15	255	15	211	15	
CPD 50 - 420	2"	1450	20	383	14.9	408	15	415	14.5	383	12.6	357	12.1	264	11.9	213	12	2
		1750	25	430	19	461	19.1	471	18.3	410	17.4	381	17.4	275	17.4	224	17.4	
CPD 80 - 600	3"	1450	30	532	23.9	542	23.8	568	23.5	568	21.8	544	21.1	452	20.1	420	19.8	2.1
		1750	40	643	35.3	649	35.1	687	34.3	668	32.2	638	31.7	503	30.3	445	30	2.1
CPD 80 - 750	3"	1450	40	658	31.3	678	30.4	734	29.1	730	26.9	707	26.2	590	24.7	530	24.2	2.4
		1750	50	760	45	799	43.5	850	41.7	830	38.6	794	37.8	644	35.6	570	34.8	2.4
CPD 100 - 870	4"	800	40	714	31	757	31	782	30	731	28	712	28	553	28	485	28	3.3
		975	40	799	34	850	33	876	32	816	30	801	29	641	29	551	29	3.3
		1030	40	876	41	918	40	920	37	842	35	816	34	646	34	571	34	3.3
		1150	50	930	51	971	51	991	49	901	44	850	44	651	44	578	44	3.7
CPD 100 - 1260	4"	880	40	1063	37	1114	38	1139	37	1020	35	944	36	680	35	646	35	3.2
		975	50	1165	47	1233	46	1256	45	1148	41	1088	41	774	40	663	40	3.5
		1030	60	1190	54	1284	53	1309	52	1182	49	1122	47	791	47	672	47	3.5
		1150	75	1267	63	1352	63	1411	61	1241	58	1182	58	799	58	680	58	3.9
CPD 100 - 1600	4"	880	50	1190	51	1241	53	1462	52	1377	47	1301	46	893	43	782	43	3.2
		975	60	1318	54	1403	55	1598	54	1539	49	1479	48	1046	45	867	45	3.6
		1030	60	1445	58	1505	58	1624	57	1547	55	1505	55	1063	54	884	54	3.6
		1150	100	1539	75	1598	76	1692	76	1598	74	1556	73	1105	72	893	72	4.0

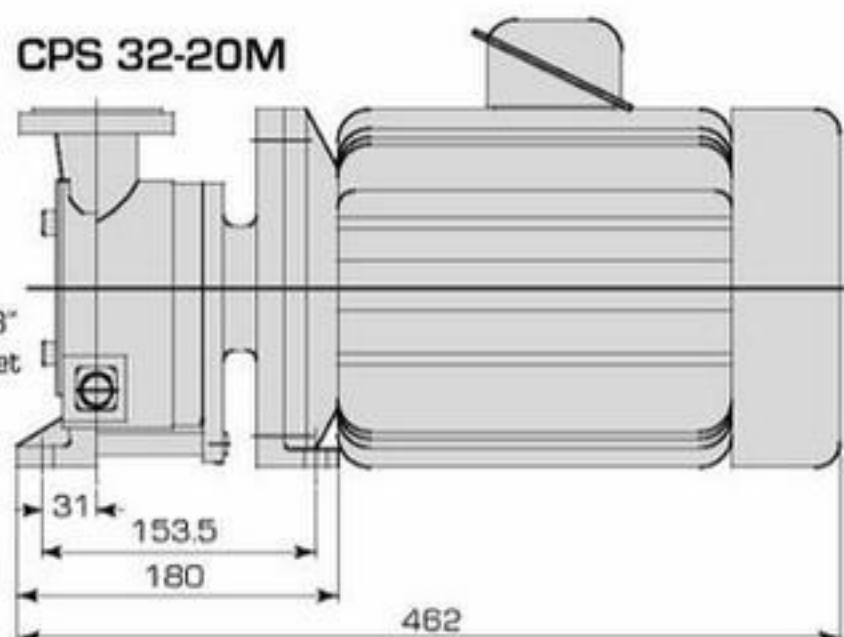
These performance curves are based on operating conditions with DRY air at a temperature of 20°C, operating water at a temperature of 15°C and a discharge pressure of 1013mbarA with a tolerance of +/- 10% according HEI standard.



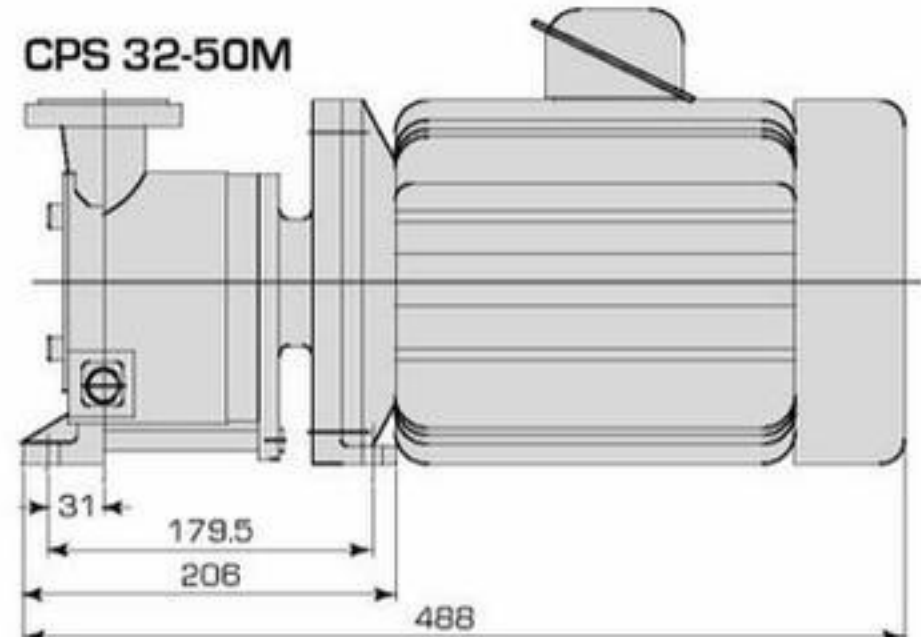
C. W. View From Drive End



CPS 32-20M

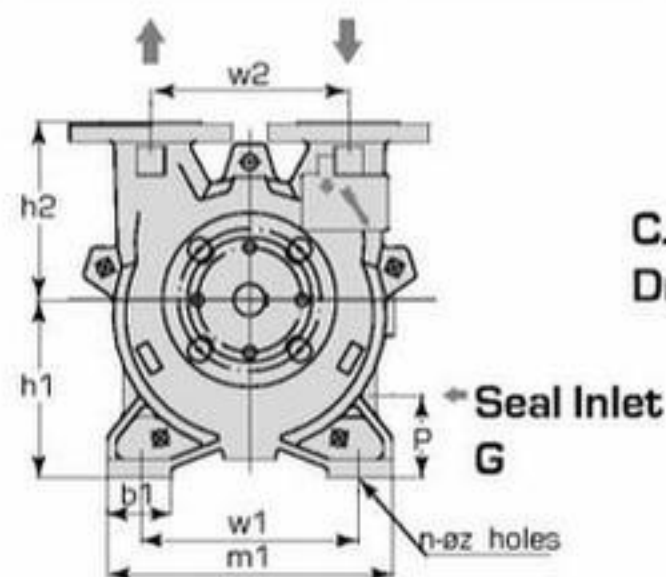


CPS 32-50M

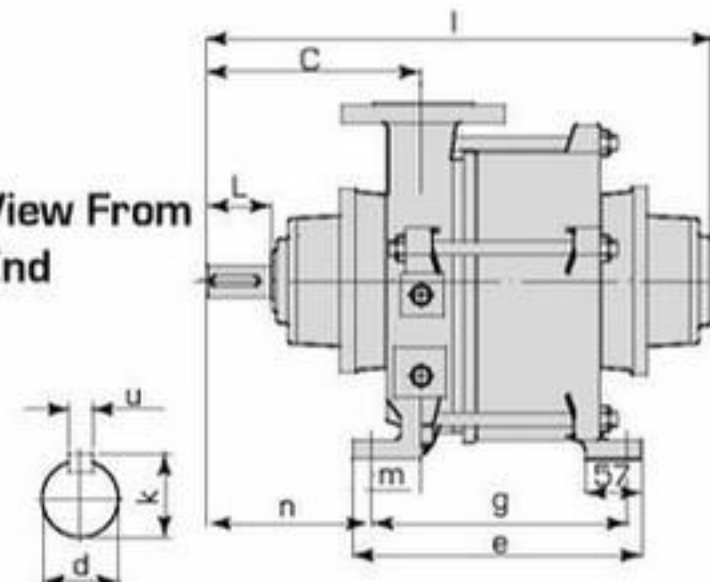


CPS 32 Model

Pump Model	IN/OUT (IN)	C	G	I	L	m	n	P	g	e	h1	h2	d	k	u	w1	w2	b1	m1	n - øz	Weight (kgs)
32-20	1 1/4"	125	3/8"	240	35	45	94	43	125	150	100	100	19	21.5	6	125	100	37	162	4 - ø12	15
32-50				275					160	185											17



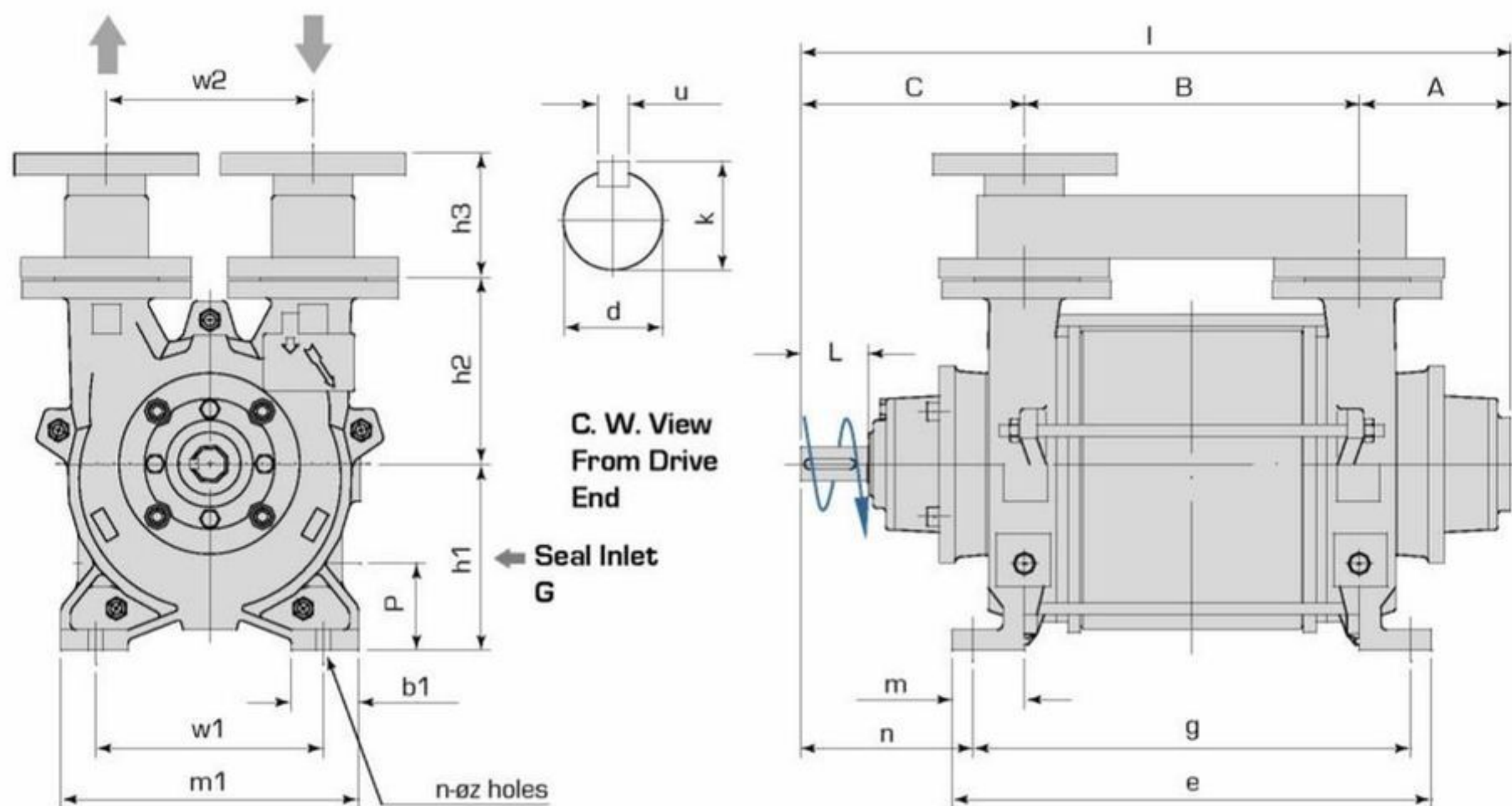
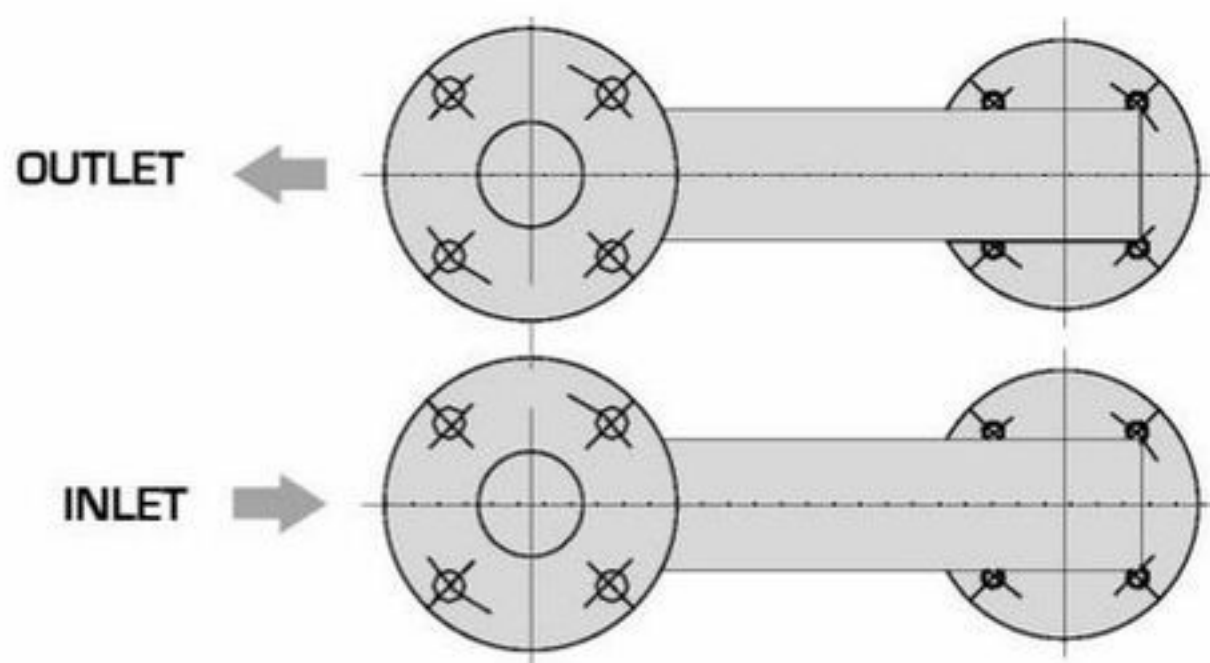
C. W. View From Drive End



CPV 50-220 Model

Pump Model	IN/OUT (IN)	C	G	I	L	m	n	P	g	e	h1	h2	d	k	u	w1	w2	b1	m1	n - øz	Weight (kgs)
50 - 220	2"	217	1/2"	510	65	70	167	84	259	293	180	180	32	35	10	220	200	70	288	3 - ø16	84





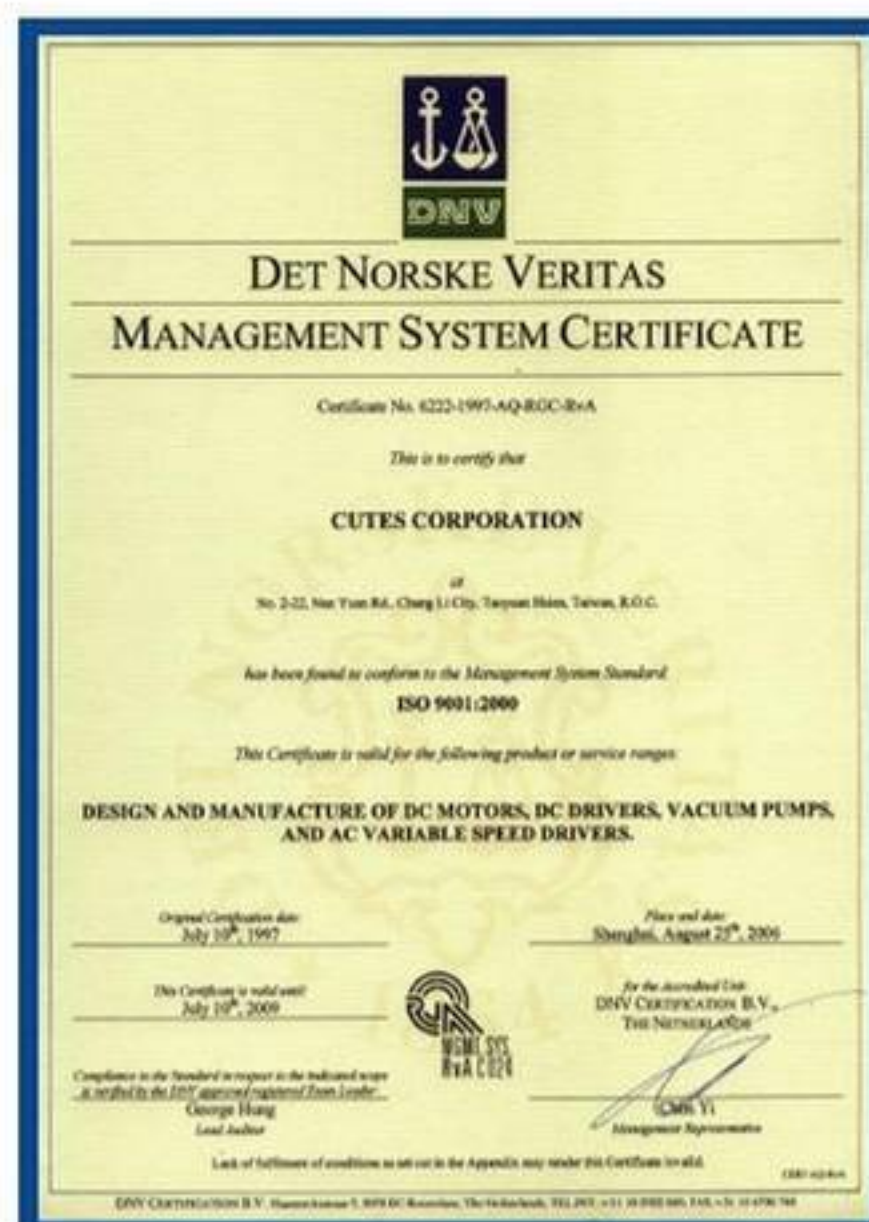
Pump Model	IN/OUT (IN)	A	B	C	G	I	L	m	n	P	g	e	h1	h2	h3	d	k	u	w1	w2	b1	m1	n - sz	Weight (kgs)
40-100	1 1/2"	135	120	184	1/2"	439	55	50	173	50	180	210	160	160		28	31	8	200	180	50	250	4 - ø15	70
40-150			195								514	255												295
65-300	2 1/2"	144	254	216	1/2"	614	65	70	165	80	354	394	180	180	120	32	35	10	220	200	70	288	4 - ø16	133
65-450			324								684	424												464
100-550	4"	168	326	233	11/4"	727	90	85	220	73	447	496	225	210	160	42	45	12	290	230	85	355	4 - ø18	200
100-700			391								792	512												561
125-1250	5"	142	445	235	11/2"	847	90	100	220	95	601	645	315	270	202	60	64	18	330	270	100	410	4 - ø20	436
125-1550			545								947	701												745

APPLICATION

- Central Vacuum Systems
- Condenser Exhaust
- De-aeration
- Drying Systems
- Evaporation Crystallization
- Evisceration
- Extrusion
- Filtration
- Impregnation
- Priming
- Sterilization
- Vacuum Condensing
- Vacuum Conveyance
- Vacuum Distillation
- Vacuum Packaging
- Vacuum truck
- Vapor and Solvent Recovery

FEATURES

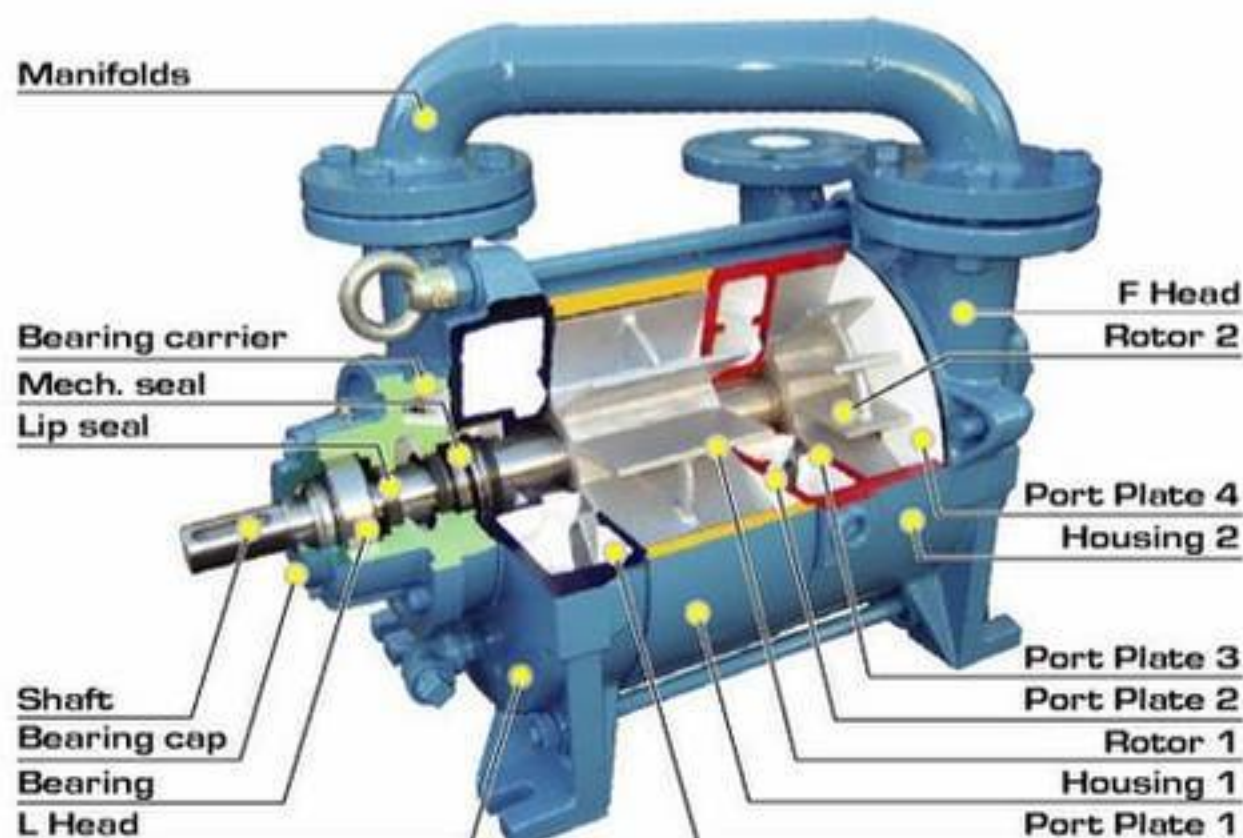
- Oil free and environmentally - friendly.
- Simple, reliability and long economical life.
- Compact design.
- Low vibration, noise levels and starting torque.
- Material construction flexibility.
- Mech. seal for standard.



ISO 9001:2000
CERTIFICATE

MODELS & MATERIAL CODES

MODEL CODE		
CP S - 100 - 550 FCD 1M		
CP	CUTES Corp. Liquid Ring Vacuum Pump with flat plate design - Small & medium models	
S	S : Single stage for low and medium vacuum. V : Single stage with flexible Teflon check valve for medium vacuum. D : Double stage for high vacuum.	
100	INLET / OUTLET Flange Diameter mm (4")	
500	Nominal Capacity (m ³ /h)	
FCD	Material Construction Code as below table	
1M	Seal Type	1M : Single Mech. Seal (Tungsten Carbide / Carbon / NBR) 2M : Double Mech. Seal (Tungsten Carbide / Carbon / Viton) O : Optional for customer assign



Parts Name	FCD	XVS	SS4	PVS	SS6
Port Plate	FC 250	SCS 13	SCS 13	SCS 14	SCS 14
Heads	FC 250	FC 250	SCS 13	FC 250	SCS 14
Housing	FC 250	SCS 13	SCS 13	SCS 14	SCS 14
Shaft	SUS 410	SUS 410	SUS 410	SUS 316	SUS 316
Rotor	FCD 400	SCS 13	SCS 13	SCS 14	SCS 14
Bearing Bracket	FC 250	FC 250	FC 250	FC 250	FC 250
Bearing Cap	FC 250	FC 250	FC 250	FC 250	FC 250

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