

## END SUCTION VOLUTE PUMPS



### APPLICATIONS

- Industrial use
- Water supply
- Hot and cold water circulation
- For swimming pool
- Sprinkling
- Air-conditioning
- Fire-fighting application

### FEATURES

- Easy removal and maintenance, BPO (Back Pull Out) system allows all rotating element to be removed without disconnecting suction and discharge pipe work
- Top centreline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads
- Non-overload design to ensure stable performance for all applications
- Wide range application with flow capacity up to 22 m<sup>3</sup>/min
- Higher working pressure up to 16 bar

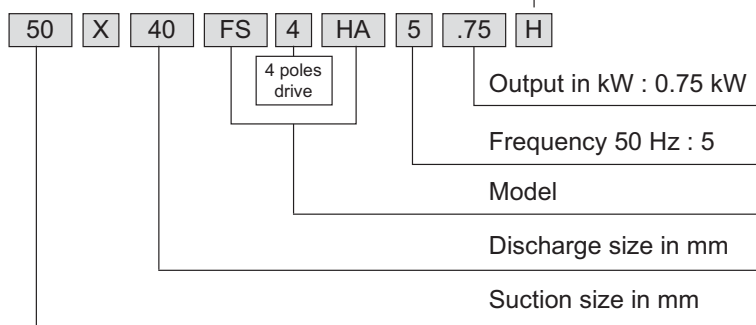
### SPECIFICATIONS

Description		Standard		Optional	
		2 poles model	4 poles model	2 poles model	4 poles model
Liquid	Name	Clean water			
	Temperature	0 to 80°C (32 to 176°F)			
Max. Working Pressure		10 bar (10.2kgf/cm²) for standard flange JIS 10K RF		16 bar (16.3 kgfcm²)	
		16 bar (16.3kgf/cm²) for standard flange JIS 16K RF			
Synchronous Speed		3000 min <sup>-1</sup>	1500 min <sup>-1</sup>		
Installation		Indoors		Outdoors	
Construction	Impeller	Enclosed			
	Shaft seal	Mechanical seal		Gland Packing	
	Sealing	Self flushing		External flushing	
	Bearing	Sealed ball bearing		Oil bath (some models only)	
Flange	Suction & Discharge	Suction < Ø 150mm, except 100X65 FSKA : JIS 10K RF		16 bar : JIS 16K RF ; DIN PN-16	
		100X65 FSKA : JIS 16K RF		DIN PN-16	
		Suction = Ø 150mm, except below models : JIS 10K RF		16 bar : JIS 16K RF ; DIN PN-16	
		150X100 FSKA; 150X100 FSNA : JIS 16K RF		DIN PN-16	
		Suction = Ø 200mm, except below models : JIS 10K RF		16 bar : JIS 16K RF ; DIN PN-16	
		200X150 FSLA; 200X150 FSNA : JIS 16K RF		DIN PN-16	
		Suction = Ø 250mm : JIS 16K RF		DIN PN-16	
Material	Casing	Cast Iron		Ductile Cast Iron (FCD)	
	Impeller	BronzeCasting (CAC406/BC6)		Cast Iron; Ductile Cast Iron (FCD)	
	Shaft	403 Stainless steel		304; 316 Stainless steel	
	Seal	Mechanical Seal: Ceramic/Carbon/NBR		Gland Packing : Teflon (PTFE) impregnated	
Accessories	Bare shaft			Mechanical seal : SiC/SiC	
	With motor	Common base, Coupling guard		Priming funnel; valve; Companion Flange	
				Priming funnel; valve; Companion Flange	

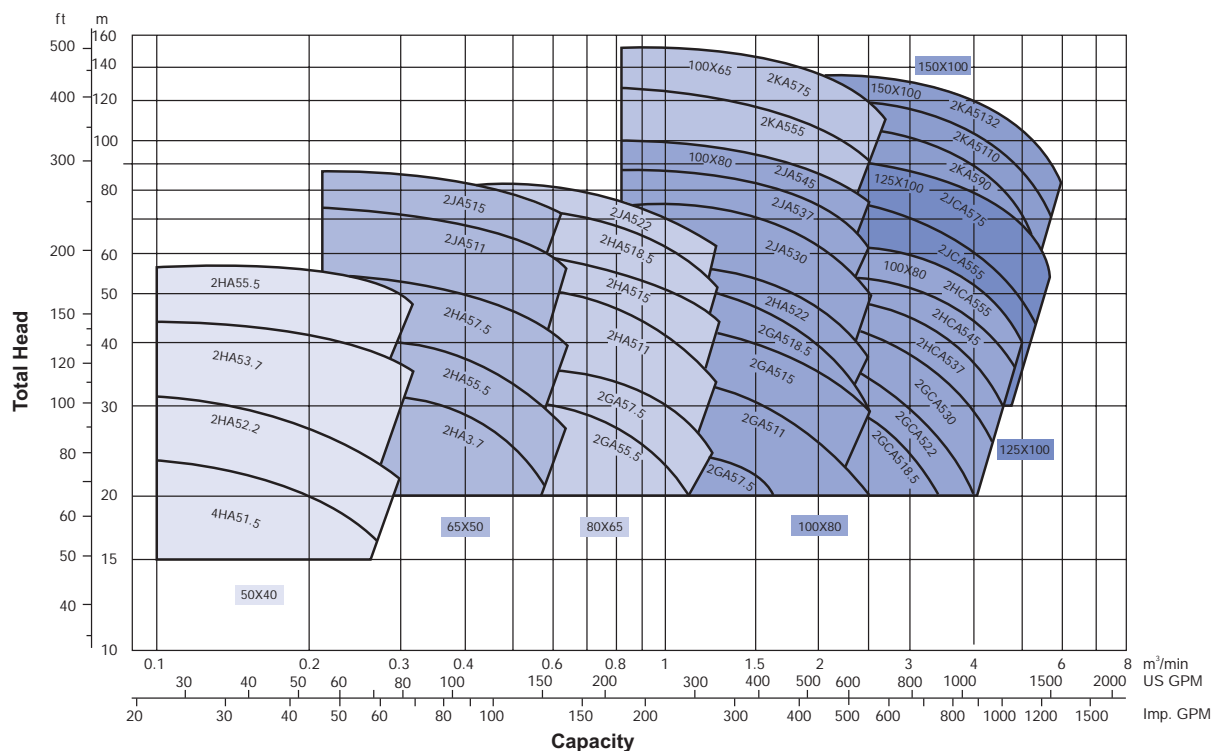
**1500 min<sup>-1</sup>**

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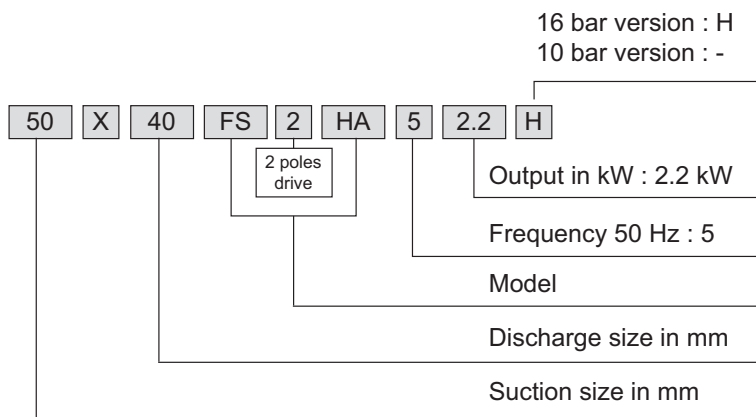
16 bar version : H  
10 bar version : -



## SELECTION CHART

**3000 min<sup>-1</sup>**
**50Hz (Synchronous Speed 3000 min<sup>-1</sup>)**


## MODEL CODE - 2 POLES - 50Hz



## TECHNICAL DATA - IMPELLER AND COUPLING

**4 POLES - 50 Hz 1500 rpm**

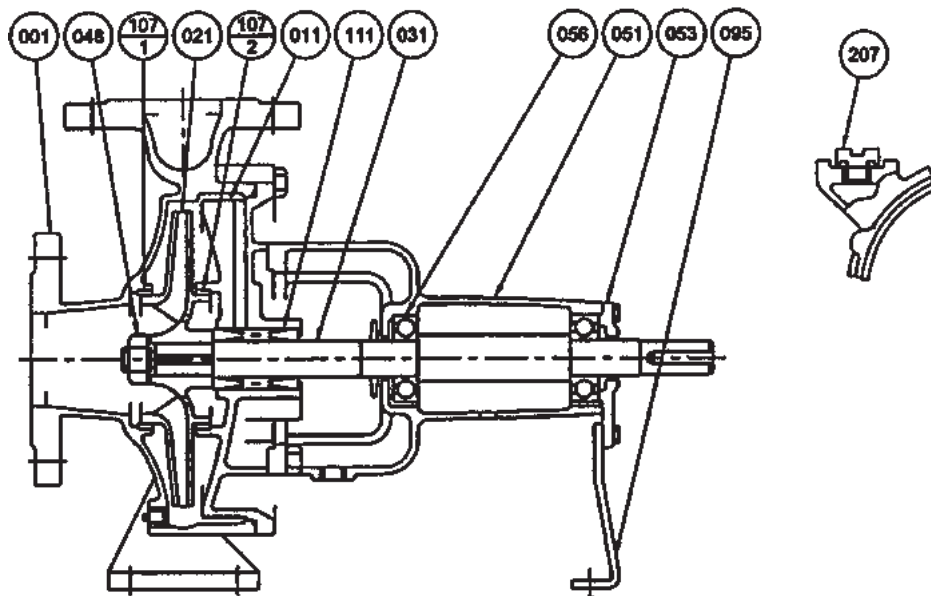
MODEL	MOTOR		IMPELLER DIA      mm	COUPLING CLA	SHAFT DIAMETER		
	POWER kW	FRAME No.			PUMP dP(mm)	MOTOR dM(mm)	
50X40 FSHA	0.4	71	182	112	24	14	
	0.75	80	209			19	
65X50 FSHA	0.75	80	199	112	24	19	
65X50 FSJA	1.5	90L	240	112	24	24	
	2.2	100L	261	125		28	
80X65 FSGA	0.75	80	164	112	24	19	
80X65 FSHA	1.5	90L	207	112	24	24	
80X65 FSJA	2.2	100L	237	140	32	28	
	3.7	112M	261				
80X65 FSKA	5.5	132S	279	160	32	38	
	7.5	132M	300			42	
	11	160M	333				
100X80 FSGA	1.5	90L	169	112	24	24	
	2.2	100L	183	125		28	
100X80 FSHA	2.2	100L	199	140	32	28	
	3.7	112M	223				
100X80 FSJA	3.7	112M	236	140	32	48	
	5.5	132S	265	160			
100X80 FSGCA	2.2	100L	166	140	32	28	
	3.7	112M	190	140			
100X80 FSHCA	3.7	112M	187	140	32	28	
	5.5	132S	205	160		38	
	7.5	132M	223	160		38	
	5.5	132S	232	160		38	
125X100 FSJCA	7.5	132M	251	160	38	38	
	11	160M	273			42	
	7.5	132M	250			38	
125X100 FSKA	11	160M	283	160	32	42	
	15	160L	315			48	
	18.5	180M	333			180	
	22	180L	368			180	48
125X100 FSLA	30	200L	407	200	32	55	
	7.5	132M	190	160		38	
150X125 FSHA	11	160M	212	160	32	42	
	15	160L	224			42	
	15	160L	246			160	42
150X125 FSJA	18.5	180M	260	180	32	48	
	22	180L	274			48	
	30	200L	316			200	55
150X125 FSKA	37	225SC	334	224	42	60	
	45	225MC	378	224		60	
150X125 FSLA	55	250SC	400	250	42	70	
	75	250MC	424			70	
	55	250SC	409			250	70
150X100 FSNA	75	250MC	460	250	55	80	
	90	280SC	499	280		80	
	5.5	132S	186	160		32	38
200X150 FSHA	7.5	132M	200	160	32	42	
	11	160M	222			42	
	15	160L	220			160	42
200X150 FSJA	18.5	180M	234	180	42	48	
	22	180L	248			55	
	30	200L	268			60	
	37	225SC	274			224	
	37	225SC	294			224	
200X150 FSKA	45	225MC	310	224	48	60	
	55	250SC	334	250		70	
	75	250MC	385	250		70	
200X150 FSLA	90	280SC	411	280	48	80	
	110	280MC	445	280	60	80	
200X150 FSNA	132	315SC	480	315		85	
	150	315MC	495				
	90	280SC	362		280	60	80
250X200 FSLA	110	280MC	380	315	85		
	132	315SC	392				
	150	315MC	408				
250X200 FSNA	185	315MB	445	315	74	85	
	225	315CB-95R	473	355		95	
	260	355AB-95R	492				
	300	355CB-95R	520				
	335	355CB-95R	530				

## TECHNICAL DATA - IMPELLER AND COUPLING

**2 POLES - 50 Hz 3000 rpm**

MODEL	MOTOR		IMPELLER		COUPLING CLA	SHAFT DIAMETER	
	POWER kW	FRAME No.	DIA	mm		PUMP dP(mm)	MOTOR dM(mm)
50X40 FSHA	1.5	90S	143		112	24	24
	2.2	90L	160				
	3.7	112M	188		125		28
	5.5	132S	208		160		38
65X50 FSHA	3.7	112M	166		125	24	28
	5.5	132S	185				
	7.5	132S	207		160		38
65X50 FSJA	11	160M	232		160	24	42
	15	160M	250				
80X65 FSGA	5.5	132S	157		160	24	38
	7.5	132S	173				
80X65 FSHA	11	160M	199		160	24	42
	15	160M	215				
80X65 FSJA	18.5	160L	240		160	32	42
	22	180MA	246		180		48
	7.5	132S	147				38
100X80 FSGA	11	160M	167		160	24	42
	15	160M	180				
	18.5	160L	201		160		42
100X80 FSHA	22	180MA	211		180	32	48
	30	200LA	235				
100X80 FSJA	37	200LA	254		200	32	55
	45	225MA	269				
	55	250SA	286				
100X65 FSKA	75	250MA	328		224	38	60
	18.5	160L	166				
100X80 FSGCA	22	180MA	178		160	32	42
	30	200LA	193		180		48
	37	200LA	197				
100X80 FSHCA	45	225MA	205		200	32	55
	55	250SA	223				
	55	250SA	236		200		55
125X100 FSJCA	75	250MA	273		224	38	60
	75	250MA	278		224		60
150X100 FSKA	90	280SA	291		250	42	65
	110	280MA	310				
	132	315SA	323				

## SECTIONAL VIEW - Mechanical Seal (Standard)

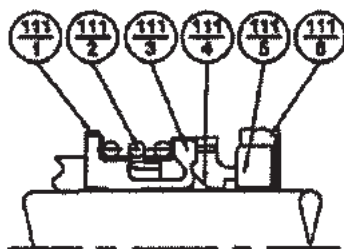
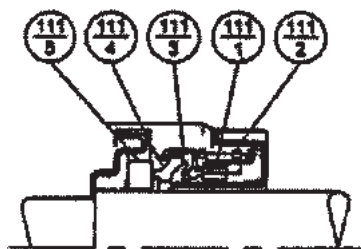


### Model FH

50x40 FSHA; 60x50 FSHA, FSJA;  
80x65 FSGA, FSHA, FSJA, FSKA;  
100x80 FSGA, FSHA, FSJA;  
125x100 FSKA

### Model EA

100x65 FSKA; 100x80 FSGCA, FSHCA;  
125x100 FSJCA, FSLA;  
150x100 FSKA, FSNA;  
150x125 FSHA, FSJA, FSKA, FSLA;  
200x150 FSHA, FSJA, FSKA, FSLA, FSNA;  
250x200 FSLA, FSNA

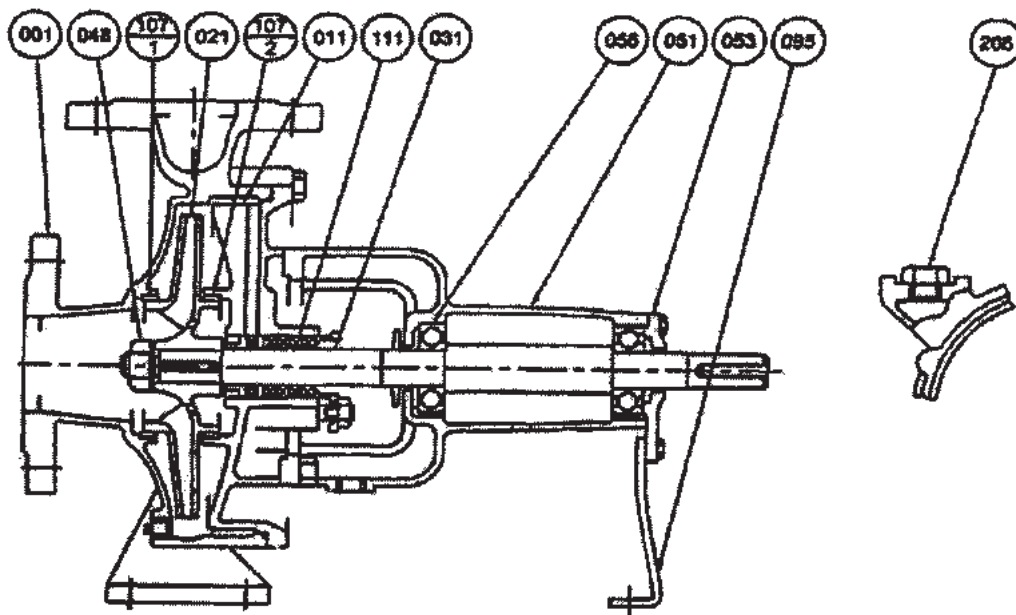


No.	Part Name	Material	Qty
111-1	Spring Holder	Stainless	1
111-2	Coil Spring	Steel	
111-3	Friction Ring	NBR	
111-4	Seal Ring	Carbon	
111-5	Mating Ring	Ceramic	

No.	Part Name	Material	Qty
111-1	Spring Holder	Stainless	1
111-2	Coil Spring	Steel	
111-3	Bellows	NBR	
111-4	Seal Ring	Carbon	
111-5	Mating Ring	Ceramic	
111-6	Cup Gasket	NBR	

No.	Part Name	Material	Qty
001	Casing	Cast Iron	1
011	Casing Cover		
021	Impeller	Bronze	
031	Shaft	Stainless Steel	
048	Impeller Nut	Brass	
051	Bearing Housing	Cast Iron	2
053	Bearing Cover		
056	Ball Bearing	-	
095	Stay	Steel	1
107-1	Casing Ring	Bronze	1
107-2	Casing Ring		
111	Mechanical Seal	-	
207	Plug	Steel	

## SECTIONAL VIEW - Gland Packing (Option)

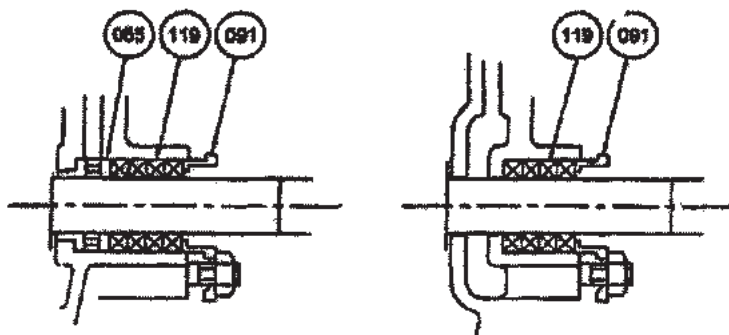


### With Lantern Ring

50x40 FSHA; 65x50 FSHA, FSJA;  
80x65 FSGA, FSHA;  
100x80 FSGA, 125x100 FSLA;  
150x100 FSKA, FSNA;  
150x125 FSKA, FSLA;  
200x150 FSJA, FSLA, FSNA;  
250x200 FSLA, FSNA

### Without Lantern Ring

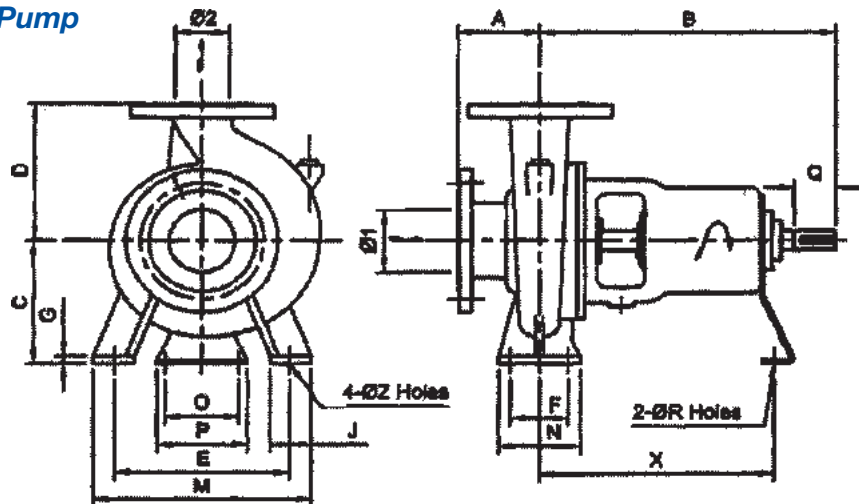
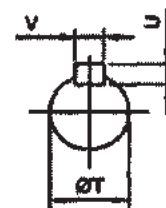
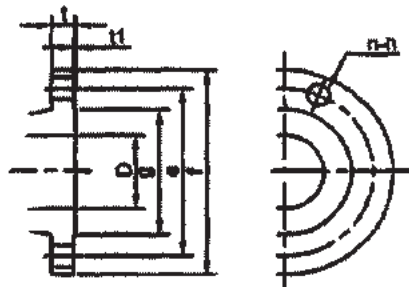
80x65 FSJA; FSKA;  
100x65 FSKA;  
100x80 FSHA, FSJA, FSGCA, FSHCA;  
125x100 FSJCA, FSKA;  
150x125 FSHA, FSJA;  
200x150 FSHA, FSKA;



No.	Part Name	Material	Qty
085	Lantern Ring	Bronze	1
091	Gland		
119	Gland Packing	Non-Asbestos	4 or 5

No.	Part Name	Material	Qty
091	Gland	Bronze	1
119	Gland Packing	Non-Asbestos	4 or 5

No.	Part Name	Material	Qty
001	Casing	Cast Iron	1
011	Casing Cover		
021	Impeller	Bronze	
031	Shaft	Stainless Steel	
048	Impeller Nut	Brass	
051	Bearing Housing	Cast Iron	1
053	Bearing Cover		
056	Ball Bearing	-	2
095	Stay	Steel	1
107-1	Casing Ring	Bronze	1
107-2	Casing Ring		
111	Gland Packing	Non-Asbestos	4 or 5
207	Plug	Steel	1

**DIMENSION - Bare Shaft Pump (10 Bar Model)**
**50Hz**
**Pump**

**Shaft End**

**Flange**

**Dimension – Flange (JIS 10K RF)**

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
40	140	105	81	2	20	4	19
50	155	120	96	2	20	4	19
65	175	140	116	2	22	4	19
80	185	150	126	2	22	8	19
100	210	175	151	2	24	8	19
125	250	210	182	2	24	8	23
150	280	240	212	2	26	8	23
200	330	290	262	2	26	12	23

**Dimension – Pump (50/60 Hz)**

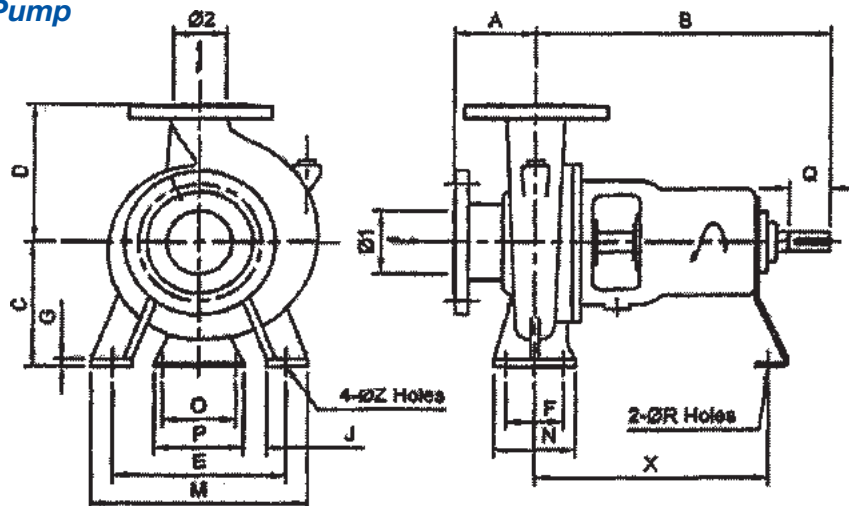
Model		Size		Pump															Shaft					wt
		Ø1	Ø2	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V	Kg	
50X40	FSHA	50	40	80	360	160	180	190	70	12	50	240	100	110	150	17	285	15	24	50	7	8	37	
65X50	FSHA	65	50	100	360	160	180	190	70	12	50	265	100	110	150	17	285	15	24	50	7	8	42	
65X50	FSJA					180	225	250	95	14	65	320	125										49	
80X65	FSGA					160	180	212	70	12	50	265	100						24	50	7	8	39	
80X65	FSHA			100	360	160	200	212	70	12	50	265	100						24	50	7	8	48	
80X65	FSJA					180	225	250	95	14	65	320	125						32	80	8	10	60	
80X65	FSKA			125	470	225	280	315	120	16	80	400	160				370	19					108	
100X80	FSGA					160	200	212		14		280	125					15	24	50	7	8	49	
100X80	FSHA			100	360	180	225	250	95		65	320											62	
100X80	FSJA					200	250	280	120	15	80	360	160	110	150	17	285	19					70	
100X80	FSGCA			125	360	180	225	250				320							32	80	8	10	62	
100X80	FSHCA					250	280		95	14	65	345	125					15					65	
125X100	FSJCA				360	225	280										285		38				108	
125X100	FSKA	125	100	140	470	250	315	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	128	
125X100	FSLA				530	280	355	400	150	20	100	500	200					24	42	110	8	12	168	
150X125	FSHA					315				15													120	
150X125	FSJA	150	125	140	470	250	355	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	128	
200X150	FSHA	200	150	160	470	280	355	400	150	18	100	500	200	110	150	17	370	24	32	80	8	10	137	

Unit : mm, unless otherwise stated

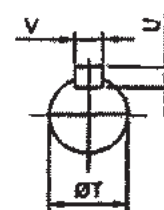


## DIMENSION - Bare Shaft Pump (10 Bar Model)

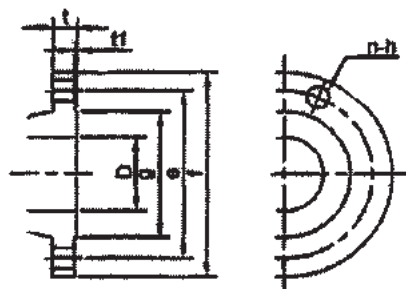
**Pump**



**Shaft End**



**Flange**



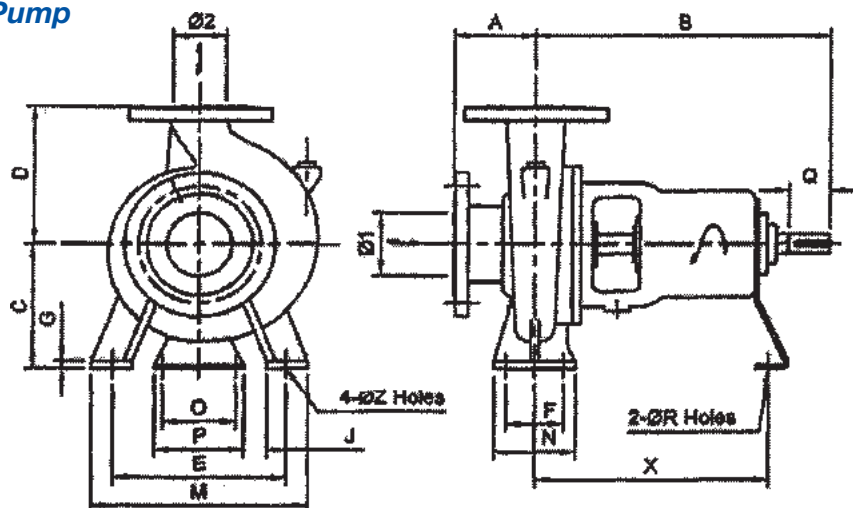
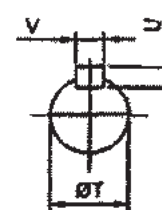
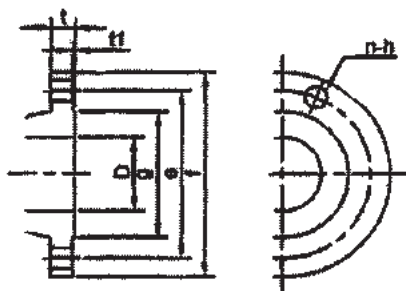
Dimension – Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
125	250	210	182	2	24	8	23
150	280	240	212	2	26	8	23
200	330	290	262	2	26	12	23

Dimension – Pump

Model	Size		Pump															Shaft				wt Kg
	Ø1	Ø2	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V	
150X125 FSKA	150	125	140	530	280	355	400	150	16	100	500	200	110	150	17	370	24	42	110	8	12	170
150X125 FSLA					315	400			20													205
200X150 FSJA	200	150	160	530	280	375	400	150	18	100	500	200	110	150	17	370	24	42	110	8	12	183
200X150 FSKA					315	400			20													222

Unit : mm, unless otherwise stated

**DIMENSION - Bare Shaft Pump (16 Bar Model)**
**50Hz**
**Pump**

**Shaft End**

**Flange**


Dimension – Flange (JIS 16K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
65	175	140	116	2	22	8	19
100	225	185	160	2	26	8	23
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27

Dimension – Pump (50/60 Hz)

Model	Size		Pump																Shaft				wt Kg
	Ø1	Ø2	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V		
100X65 FSKA	100	65	125	360	225	280	315	120	16	80	400	160	110	150	17	257	19	38	80	8	10	106	
150X100 FSKA	150	100	140	530	250	315	315	120	16	80	400	160	90	120	15	373	19	42	95	8	12	146	
150X100 FSNA			180	670	375	450	450	150	20	100	550	200	140	180	19	500	24	48	110	9	14	365	
200X150 FSLA	200	150	162	670	315	450	450	150	20	100	550	200	140	180	19	500	24	48	110	9	14	336	
200X150 FSNA			182		375	560												60		11	18	488	
250X200 FSLA	250	200	180	670	385	560	560	250	25	100	660	315	140	180	19	500	24	60	110	11	18	505	
250X200 FSNA			200	820	435	630							160	200		630	27	74	125	12	20	642	

Unit : mm, unless otherwise stated

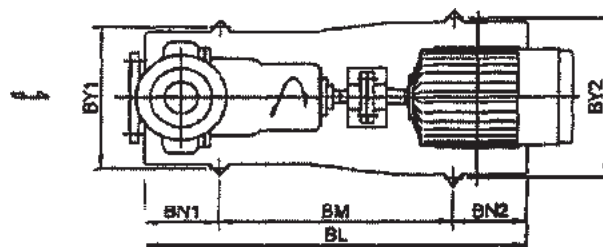
## DIMENSION - Bare Shaft Pump (10 Bar Model)

**50Hz**

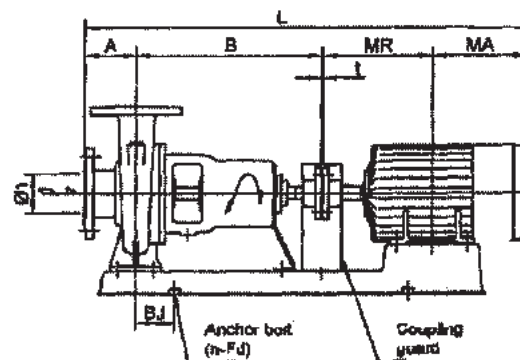
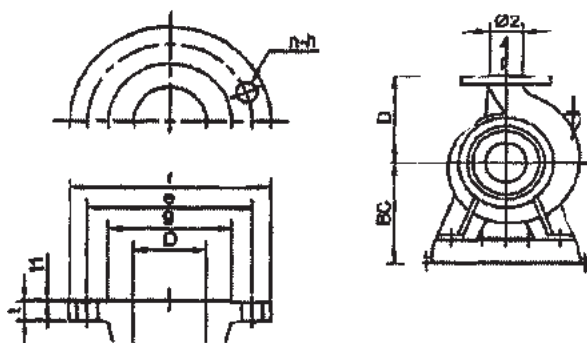
Dimension – Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
40	140	105	81	2	20	4	19
50	155	120	96	2	20	4	19
65	175	140	116	2	22	4	19
80	185	150	126	2	22	8	19
100	210	175	151	2	24	8	19

**Pump**



**Flange**



Dimension – Pump

Model	Motor	Size		Pump				Motor				Common Base										Total		
	kW	Ø1	Ø2	A	B	D	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg
50X40 FS4HA	0.4	50	40	80	360	180	37	71	120	130.5	12	215	45	640	420	105	115	320	230	4-M12	19	3	693.5	71
	0.75							80	140	142.5	17										20		725.5	77
65X50 FS4HA	0.75	65	50	100	360	180	42	80	140	142.5	17	215	45	640	420	105	115	320	230	4-M12	20	3	745.5	82
65X50 FS4JA	1.5	65	50	100	360	225	49	90L	168.5	164	23.5	230	40	740	480	115	145	400	260	4-M12	24.5	3	795.5	99.5
	2.2							100L	193	181.5	32										26		837.5	110.5
80X65 FS4GA	0.75	80	65	100	360	180	39	80	140	142.5	17	215	45	640	420	105	115	320	230	4-M12	20	3	745.5	79
80X65 FS4HA	1.5	80	65	100	360	200	48	90L	168.5	164	23.5	230	40	740	550	115	75	360	290	4-M12	26	3	795.5	101
80X65 FS4JA	2.2	80	65	100	360	225	60	100L	193	181.5	32	230	40	740	480	115	145	400	260	4-M12	26	3	837.5	123
	3.7							112M	200	191.5	43										290		854.5	133
80X65 FS4KA	5.5	80	65	125	470	280	108	132S	239	215	62	295	80	960	660	180	120	490	400	4-M16	56	3	1025	233
	7.5							132M	258	234	77										57		1090	249
	11							160M	323	285	115			100	1090	740	200	150			57		1206	289
100X80 FS4GA	1.5	100	80	100	360	200	49	90L	168.5	164	23.5	230	40	740	550	115	75	360	290	4-M12	24	3	795.5	100
	2.2	2.2						100L	193	181.5	32										26		837.5	109
100X80 FS4HA	2.2	100	80	100	360	225	62	100L	193	181.5	32	230	40	740	480	115	145	400	260	4-M12	26	3	837.5	125
	3.7							112M	200	191.5	43										290		854.5	135
100X80 FS4JA	3.7	100	80	100	360	250	70	112M	200	191.5	43	265	55	765	540	155	70	440	320	4-M16	33.5	3	854.5	151.5
	5.5							132S	239	215	62			855	630						38		917	177

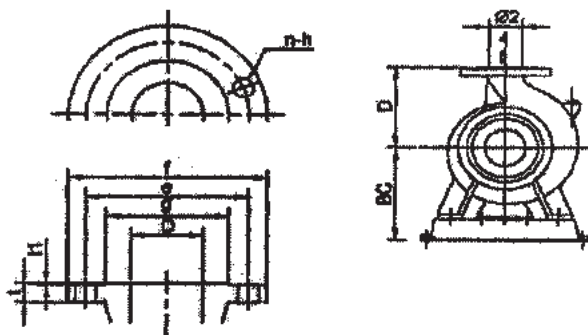
Unit : mm, unless otherwise stated

**DIMENSION - Pump with Motor (10 Bar Model)**
**4 Poles 50Hz**

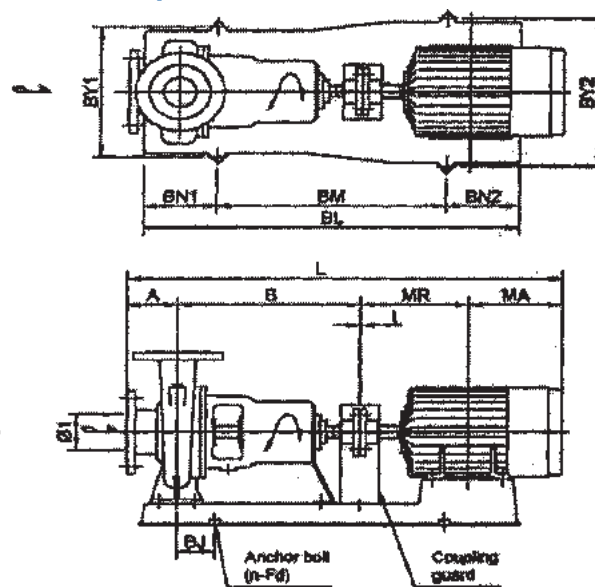
Dimension – Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
80	185	150	126	2	22	8	19
100	210	175	151	2	24	8	19
125	250	210	182	2	24	8	23
150	280	240	212	2	26	8	23
200	330	290	262	2	26	12	23

Flange



Pump



Dimension – Pump

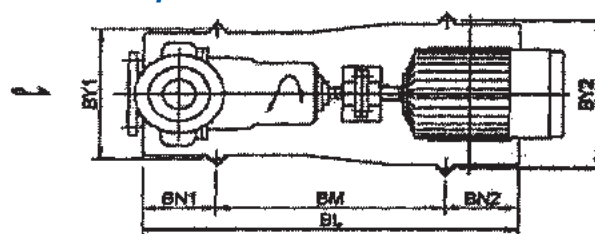
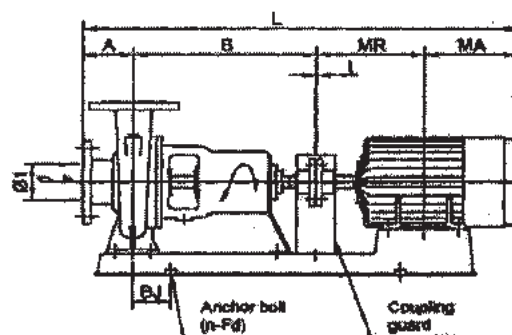
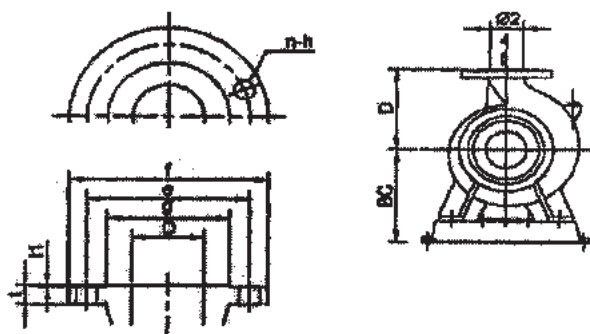
Model	Motor	Size		Pump				Motor				Common Base										Total					
	kW	Ø1	Ø2	A	B	D	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg			
100X80 FS4GCA	2.2	100	80	125	360	225	62	100L	193	170	30	230	40	740	480	115	145	400	260	4-M12	24.5	3	851	124.5			
	3.7							112M	200	182	42								290		25			880	137		
100X80 FS4HCA	5.5	100	80	125	360	250	65	132S	239	207	65	250	55	855	630	155	70	440	350	4-M12	38	3	934	179			
	7.5							132M	258	234	77									270	40			980	193		
125X100 FS4JCA	5.5	125	100	140	360	280	108	132S	239	207	65	321	45	825	525	150	70	440	350	4-M12	55	3	949	233			
	7.5							132M	258	226	76			60M	323						281			120	60	987	255
	11							160M	323	281	120			60	940						640			1107	298		
125X100 FS4KA	15	125	100	140	470	315	128	160L	345	307	132	330	100	1075	740	190	145	490	400	4-M16	64.5	3	1265	331.5			
	18.5							180MC	351.5	320.5	172			84	1285						393						
125X100 FS4LA	22	125	100	140	530	355	168	180LC	370.5	339.5	205	390	95	1230	840	205	185	600	440	4-M20	774	3	1383	459.5			
	30							200LC	395.5	374.5	278			120	1280	940	230		110		490			724	1444	532.5	
150X125 FS4HA	7.5	150	125	140	470	315	120	132M	258	234	77	320	80	960	660	180	120	490	400	4-M16	57	3	1105	261			
	11							160M	323	285	115			330	100	1075	740				90			145	44.7	1221	286.5
	15							160L	345	307	132			320	1090	740	200				150			62	1265	321	
150X125 FS4JA	15	150	125	140	470	355	128	160L	345	307	132	320	100	1090	740	200	150	490	400	4-M16	62	3	1265	329			
	18.5							180MC	351.5	320.5	172	330		1075	190	145	83				1285			392			
	22							180LC	370.5	339.5	205	340		60	1245	960	230				235			670	600	4-M20	105
150X125 FS4KA	30	150	125	140	530	355	170	200LC	395.5	374.5	278	390	120	1280	940	230	110	600	490	4-M20	72.4	4	1444	534.5			
	37							225SC	432	384	327			385	110	1425	960	235	670		600			141.6	1490	657	
150X125 FS4LA	45	150	125	140	530	400	205	225MC	444.5	396.5	351	395	110	1425	960	230	235	670	600	4-M20	108	4	1515	682.5			
	55							250SC	463.5	419	475	410									1556.5			817			
	75							250MC	482.5	438	550	410									1594.5			891			

Unit : mm, unless otherwise stated

**DIMENSION - Pump with Motor (10 Bar Model)**
**4 Poles 50Hz**

Dimension – Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
150	280	240	212	2	26	8	23
200	330	290	262	2	26	12	23

**Pump**

**Flange**


Dimension – Pump

Model	Motor	Size		Pump				Motor				Common Base										Total		
	kW	Ø1	Ø2	A	B	D	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg
200X150 FS4HA	5.5	200	150	160	470	355	137	132S	239	215	62	390	80	980	660	200	120	600	400	4-M16	78	3	1087	284
	7.5							132M	258	234	77													
	11							160M	323	285	115													
200X150 FS4JA	15	200	150	160	530	375	183	160L	345	307	132	390	80	1190	840	200	150	600	400	4-M16	104	3	1345	426
	18.5							180MC	351.5	320.5	172													
	22							180LC	370.5	339.5	205		120	1280	940	230	110	600	490	4-M20	72.4	4	1464	547.5
	30							200LC	395.5	374.5	278													
	37							225SC	432	384	327													
200X150 FS4KA	37	200	150	160	670	400	222	225SC	432	384	327	425	110	1460	1000	230	230	670	550	4-M20	141	4	1650	708.5
	45							225MC	444.5	396.5	351													
	55							250SC	463.5	419	475													

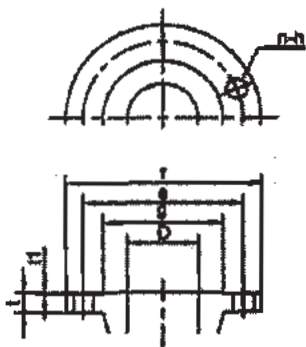
Unit : mm, unless otherwise stated

**DIMENSION - Pump with Motor (16 Bar Model)**
**4 Poles 50Hz**

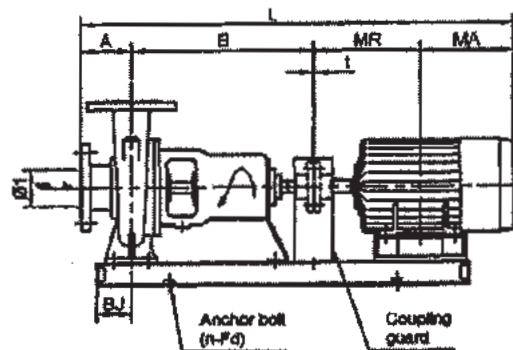
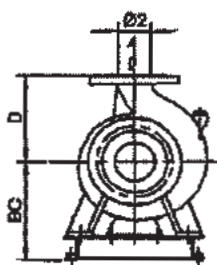
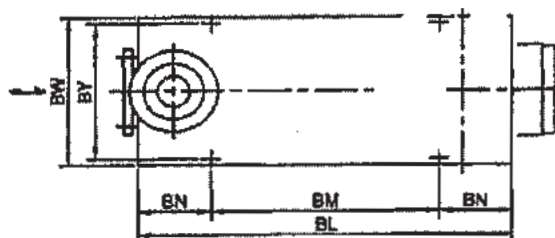
Dimension – Flange (JIS 16K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
100	225	185	160	2	26	8	23
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27

Flange



Pump



Dimension – Pump

Model	Motor	Size		Pump				Motor				Common Base										Total			
	kW	Ø1	Ø2	A	B	D	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg	
150X100 FS4NA	55	150	100	180	670	450	365	250SC	463.5	409	520	525	130	1500	2x600	150	150	580	640	6-M20	156	4	1736.5	1030	
	75							250MC	482.5	428	580	525	130	1530	2x615	150	150	580	640	6-M20	170		1774.5	1120	
	90							280SC	544.0	478	660	525	130	1600	2x650	150	150	580	640	6-M20	175		1876	1250	
200X150 FS4LA	75	200	150	162	670	450	336	250MC	482.5	428	580	465	130	1530	2x615	150	150	580	640	6-M20	150	4	1756.5	1070	
	90							280SC	544.0	478	660	465	130	1600	2x650	150	150	580	640	6-M20	145		1858	1191	
200X150 FS4NA	110	200	150	182	670	560	488	280MC	569.5	502.5	720	525	130	1670	2x685	150	150	580	640	6-M20	176	4	1928	1434	
	132							315SC	589	527	920	550	130	1680	2x690	150	150	650	720	6-M22	200		1972	1677	
	150							315MC	614.5	552.5	1030	550	130	1730	2x715	150	150	650	720	6-M22	220		2023	1804	
250X200 FS4LA	90	250	200	180	670	560	505	280SC	544.0	478	660	560	185	1680	2x675	165	165	690	760	6-M22	250	4	1876	1462	
	110							280MC	569.5	502.5	720	560	185	1730	2x700	165	165	690	760	6-M22	255		1926	1528	
	132							315SC	589	527	920	560	185	1740	2x705	165	165	690	760	6-M22	235		1970	1725	
	150							315MC	614.5	552.5	1030	560	185	1790	2x730	165	165	690	760	6-M22	240		2021	1841	
250X200 FS4NA	185	250	200	200	200	820	630	315MB	614.5	552.5	1070	610	185	1950	2x800	175	175	690	760	6-M22	290	4	2191	2067	
	225							315CB	741.0	1116	1800	610	185	2240	2x945	175	175	690	760	6-M22	340		2881	2850	
	260							355AB	779.0	1200	2400	610	185	2300	2x975	175	175	770	840	6-M22	330		5	3004	3467
	300							355CB	874.0	1295	2700	610	185	2490	2x1070	175	175	770	840	6-M22	365		3194	3802	
	335																						3250	4202	

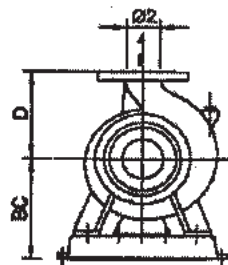
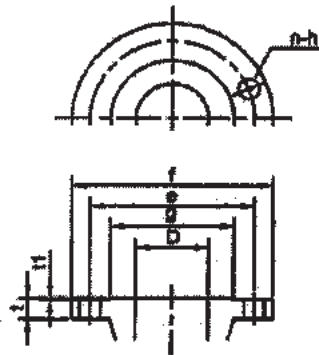
Unit : mm, unless otherwise stated

**DIMENSION - Pump with Motor (10 Bar Model)**
**2 Poles 50Hz**

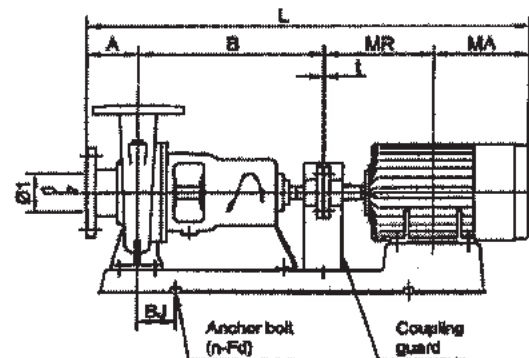
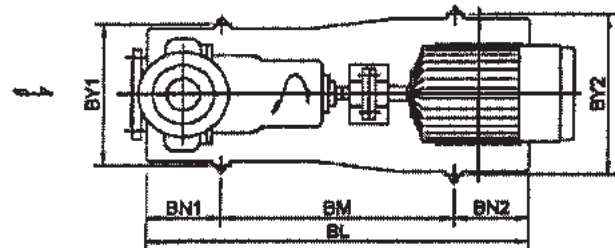
Dimension – Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
40	140	105	81	2	20	4	19
50	155	120	96	2	20	4	19
65	175	140	116	2	22	4	19
80	185	150	126	2	22	8	19

Flange



Pump



Dimension – Pump

Model	Motor	Size		Pump				Motor				Common Base										Total			
	kW	Ø1	Ø2	A	B	D	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg	
50X40 FS2HA	1.5	50	40	80	360	180	37	90S	156	151.5	21.5	220	40	740	550	115	75	360	290	4-M12	26	3	750.5	87.5	
	2.2							90L	168.5	164	26.5				29	775.5	95.5								
	3.7							112M	200	191.5	44	215	55	820	540	130	70	350	290		23		834.5	108	
	5.5							132S	239	215	65	230	820	540	130	150	350	350	31.6		897		140.5		
65X50 FS2HA	3.7	65	50	100	360	180	42	112M	200	191.5	44	215	55	740	540	130	70	350	290	4-M12	24	3	851.5	114	
	5.5							132S	239	215	65	230		820		540	130	150	350		350		32	917	146
	7.5							132S	239	215	70	230	820	540	130	150	350	350	34		151				
65X50 FS2JA	11	65	50	100	360	225	49	160M	323	285	107	270	98	920	600	160	160	400	400	4-M16	69	3	1071	232	
	15							160M	323	285	122				69	247									
80X65 FS2GA	5.5	80	65	100	360	180	39	132S	239	215	65	230	55	820	540	130	150	350	350	4-M12	33	3	917	144	
	7.5							132S	239	215	70				33	149									
80X65 FS2HA	11	80	65	100	360	200	48	160M	323	285	107	250	98	920	600	160	160	400	400	4-M16	69	3	1071	231	
	15							160M	323	285	122				69	246									
80X65 FS2JA	18.5	80	65	100	360	225	60	160L	345	307	138	270	98	920	600	160	160	400	400	4-M16	69	3	1115	274	
	22							180M	351.5	320.5	180				69	1135	321								

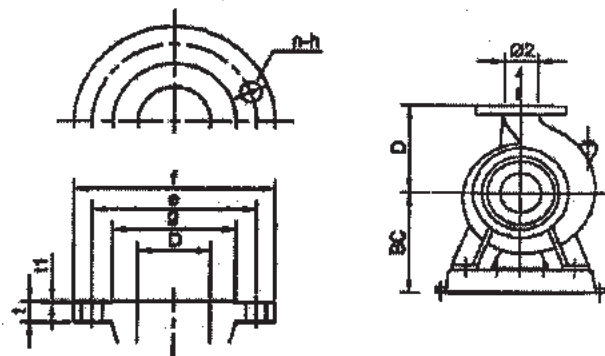
Unit : mm, unless otherwise stated

**DIMENSION - Pump with Motor (10 Bar Model)**
**2 Poles 50Hz**

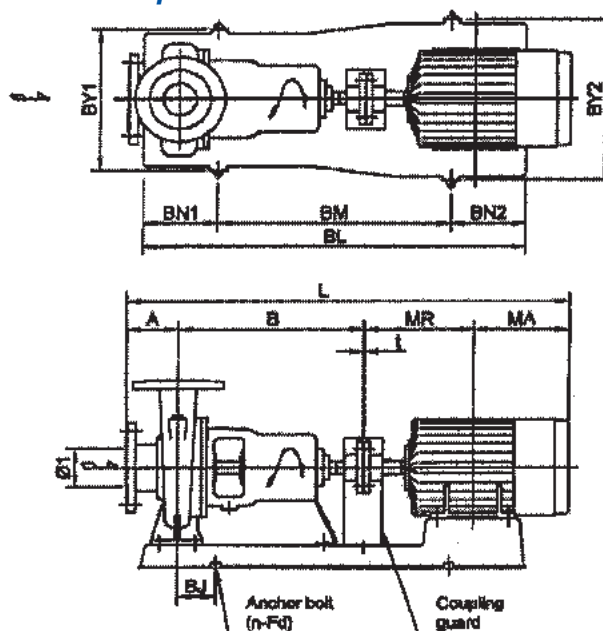
Dimension – Flange (JIS 10K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
80	185	150	126	2	22	8	19
100	210	175	151	2	24	8	19
125	250	210	182	2	24	8	23

Flange



Pump



Dimension – Pump

Model	Motor	Size		Pump			wt kg	Motor			wt kg	Common Base										Total		
	kW	Ø1	Ø2	A	B	D		Frame	MR	MA		BC	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg
100X80 FS2GA	7.5	100	80	100	360	200	49	132S	239	207	65	230	55	820	540	130	150	350	350	4-M12	30	3	909	144
	11							160M	323	281	120	250	98	920	600	160	160	400	400	4-M16	47		1067	216
	15							160M	323	281	120	250	98	920	600	160	160	400	400	4-M16	47		1111	267
100X80 FS2HA	18.5	100	80	100	360	225	62	160L	345	303	158	270	98	920	600	160	160	400	400	4-M16	47	3	1130	289
	22							170M	351.5	315.5	180	270	98	920	600	160	160	400	400	4-M16	47		1130	289
	30							200L	395.5	372.5	290	275	95	1040	660	185	195	440	440	4-M16	65		1232	425
100X80 FS2JA	37	100	80	100	360	250	70	200L	395.5	372.5	290	275	95	1040	660	185	195	440	440	4-M16	65	4	1270	490
	45							225MA	414.5	391.5	355	275	95	1040	660	185	195	440	440	4-M16	65		1270	490
	55							250SA	463.5	419	452	340	80	1120	760	180	180	550	550	4-M16	70		1257	587
100X80 FS2GCA	18.5	100	80	125	360	225	62	160L	345	303	158	270	98	920	600	160	160	400	400	4-M16	47	4	1197	267
	22							180MA	351.5	320.5	185	270	98	920	600	160	160	400	400	4-M16	47		1160	294
	30							200LA	395.5	374.5	270	275	95	1040	660	185	195	440	440	4-M16	65		1259	398
100X80 FS2HCA	37	100	80	125	360	250	65	200LA	395.5	372.5	290	275	95	1040	660	185	195	440	440	4-M16	65	4	1259	420
	45							225MA	414.5	396.5	343	315	80	1120	760	180	180	550	550	4-M16	65		1300	473
	55							250SA	463.5	419	452	340	80	1120	760	180	180	550	550	4-M16	70		1257	587
125X100 FS2JCA	55	125	100	140	360	280	108	250SA	463.5	419	452	275	95	1040	660	185	195	440	440	4-M20	65	4	1387	625
	75							250MA	482.5	438	525	420	55	1220	850	175	195	540	540	4-M20	100		1365	733

Unit : mm, unless otherwise stated

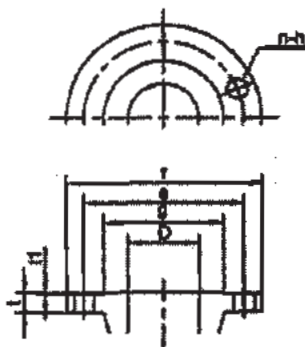


**DIMENSION - Pump with Motor (16 Bar Model)**
**2 Poles 50Hz**

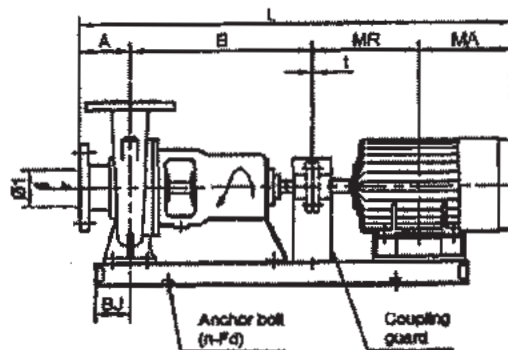
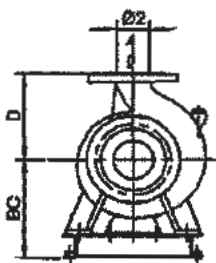
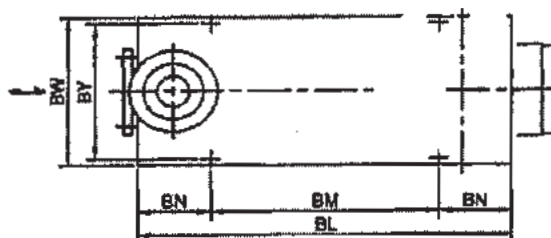
Dimension – Flange (JIS 16K RF)

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
65	175	140	116	2	22	8	19
100	225	185	160	2	26	8	23
150	305	260	230	2	28	12	25

Flange



Pump

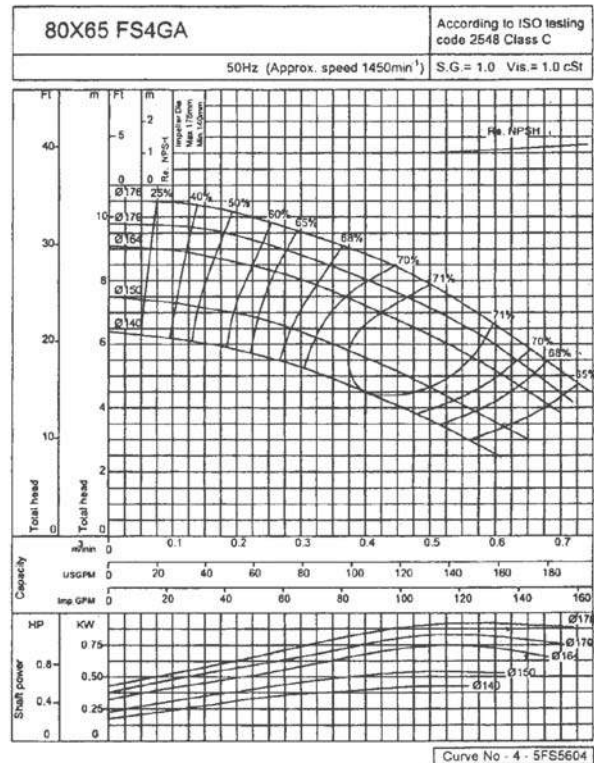
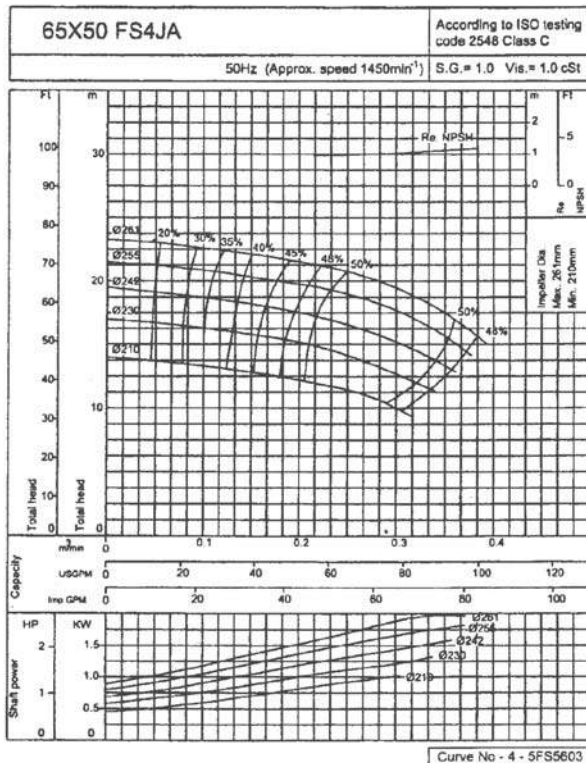
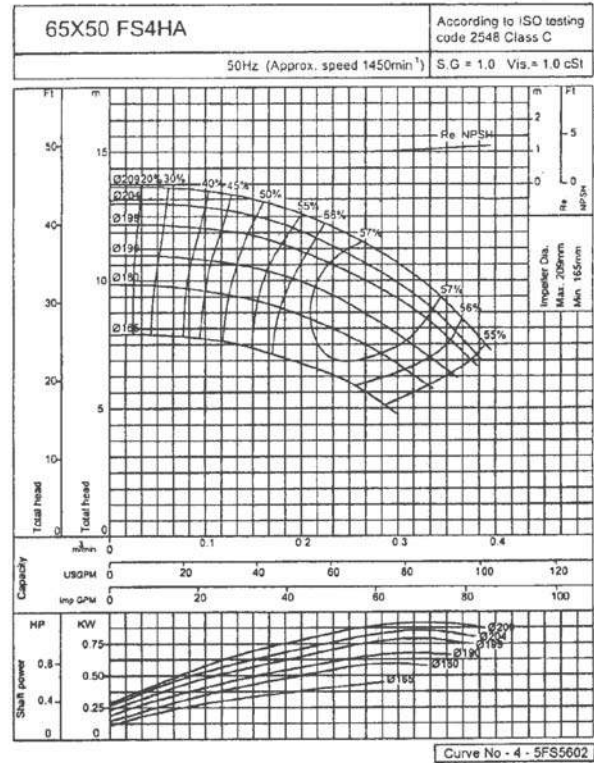
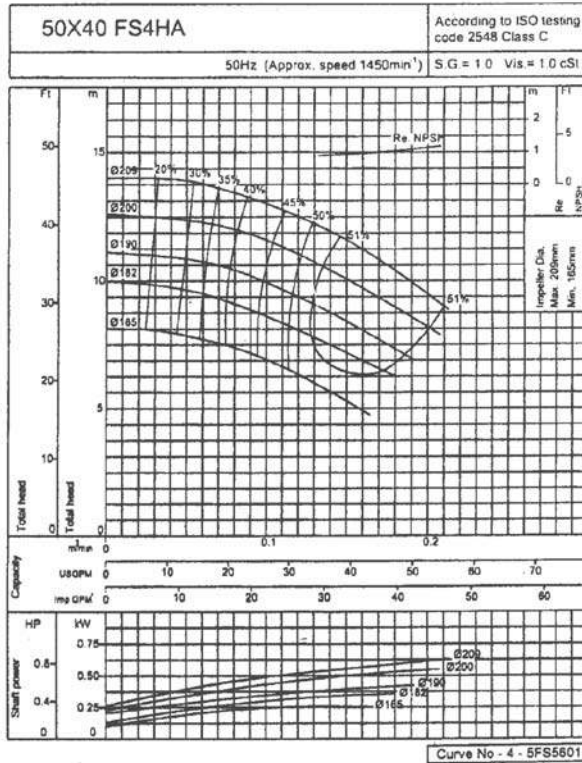


Dimension – Pump

Model	Motor	Size		Pump				Motor				Common Base										Total		
	kW	Ø1	Ø2	A	B	D	wt kg	Frame	MR	MA	wt kg	BG	BJ	BL	BM	BN1	BN2	BY1	BY2	n-Fd	wt kg	t	L	wt kg
100X65 FS2KA	55	100	65	125	360	280	49	250SA	463.5	419	452	395	50	1190	770	175	245	540	600	4-M20	95	4	1371.5	614.5
	75							250MA	482.5	438	525		65	1220	850	175	195				100		1409.5	692.5
150X100 FS2KA	90	150	100	140	530	315	62	280SA	514	478	600	430	125	1430	960	235	235	650	640	4-M20	115	4	1666	827
	110							280MA	539.5	502.5	700		145	1480		260	260				130		1716	942
	132							315SA	559	527.0	920		155	1500		270	270			4-M22	175		1760	1212

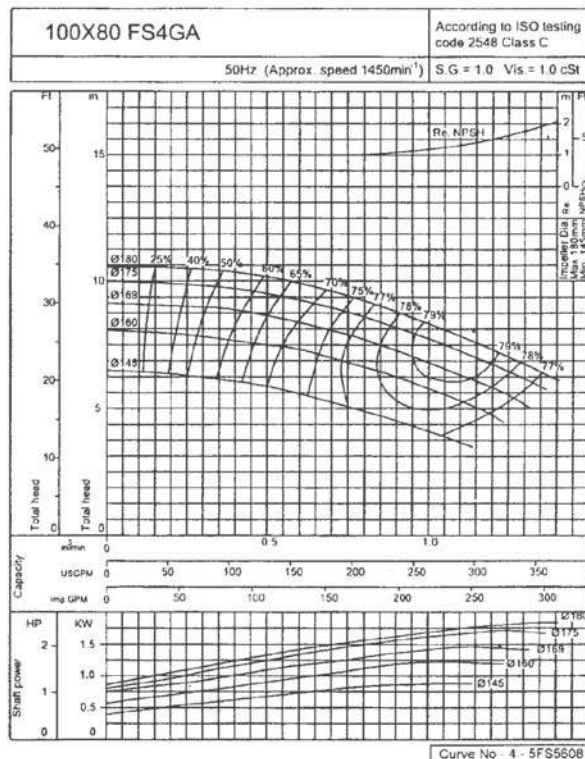
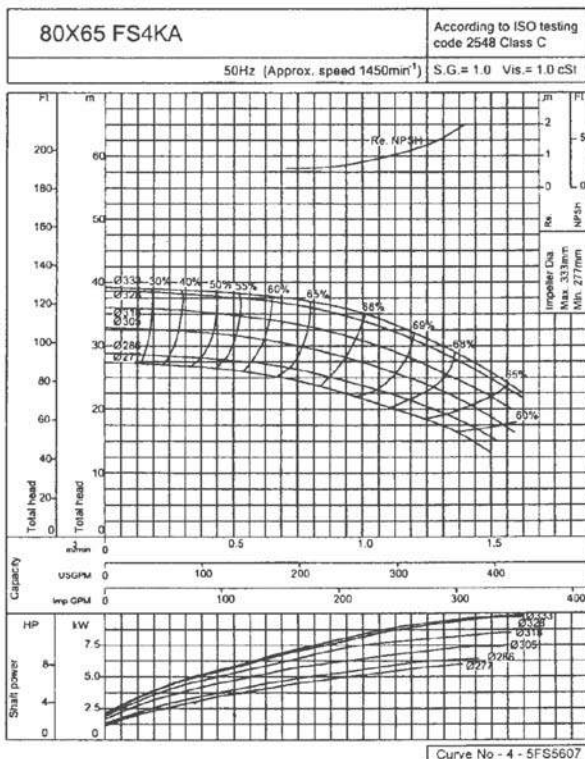
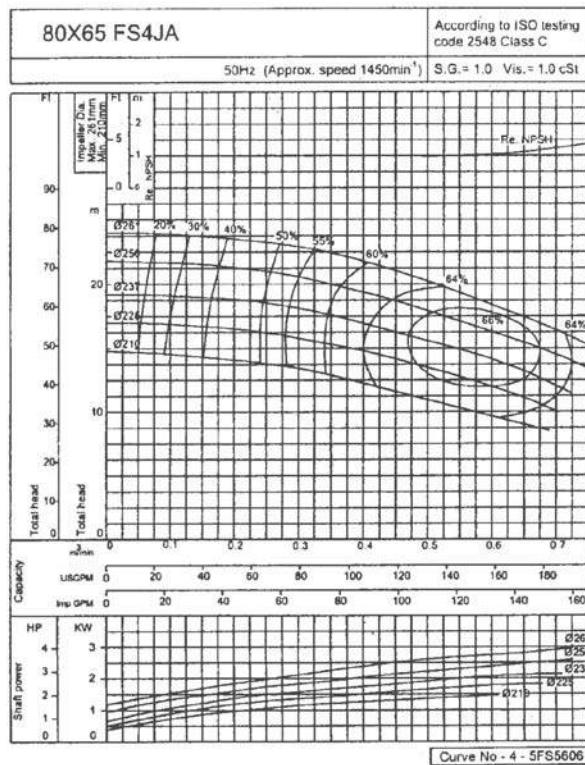
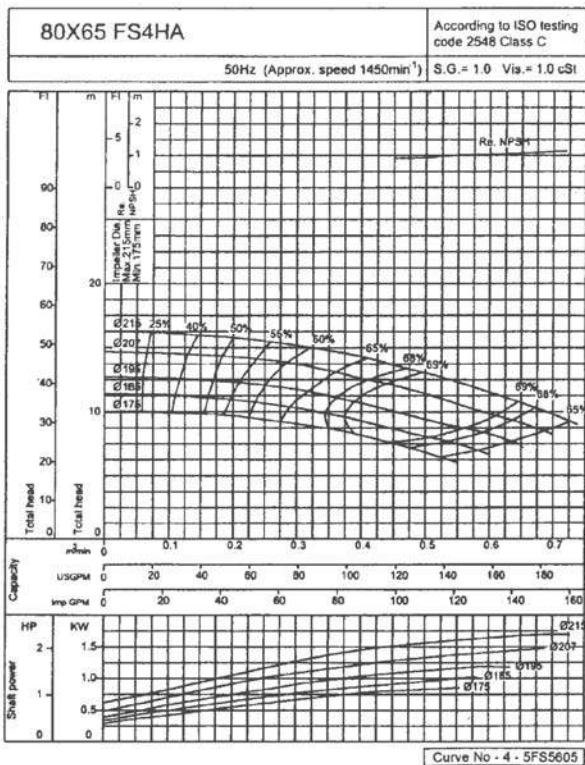
Unit : mm, unless otherwise stated

# PERFORMANCE CURVE

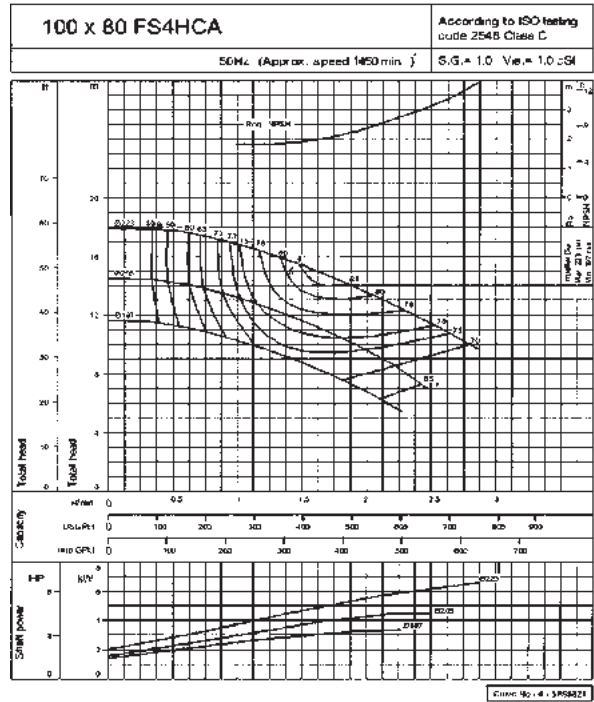
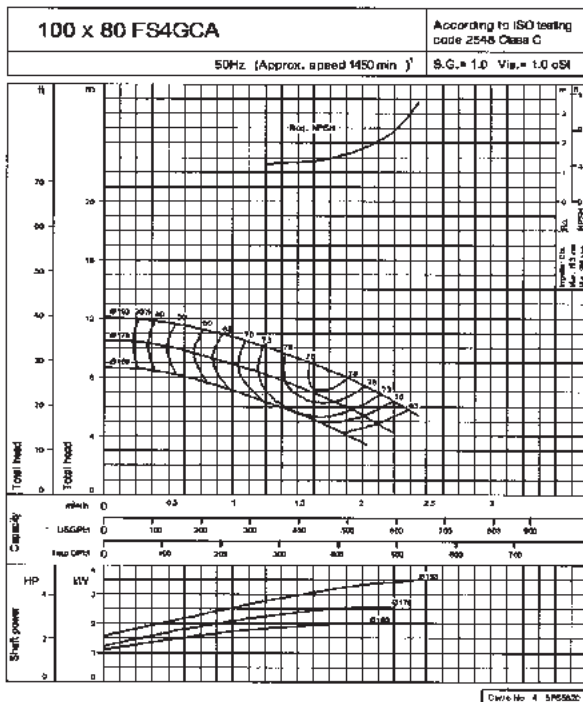
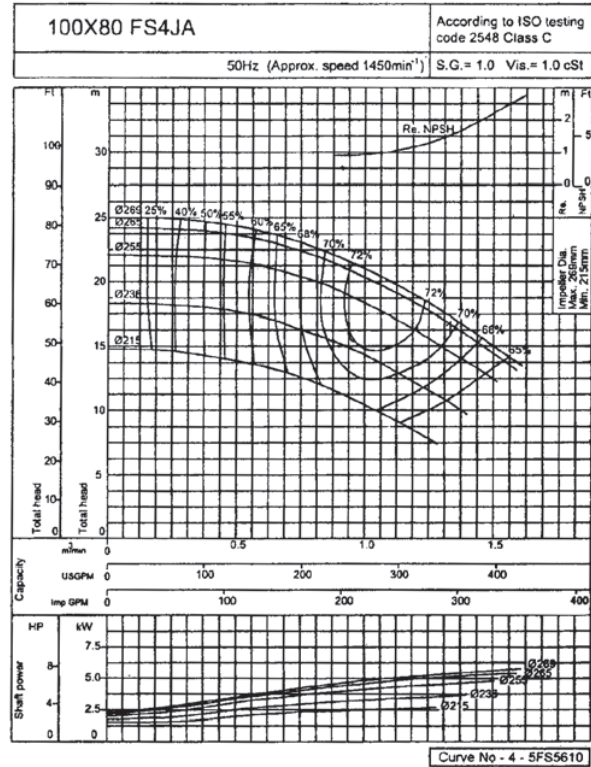
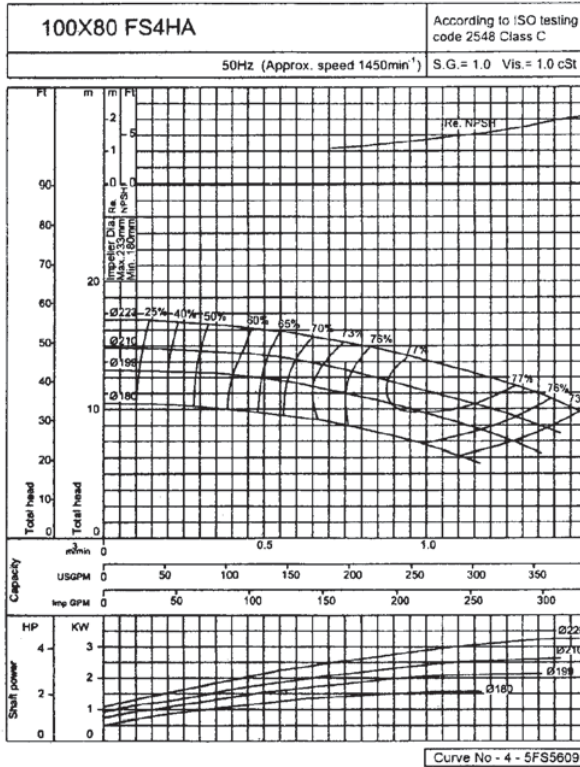
**1450 min<sup>-1</sup>**




# PERFORMANCE CURVE

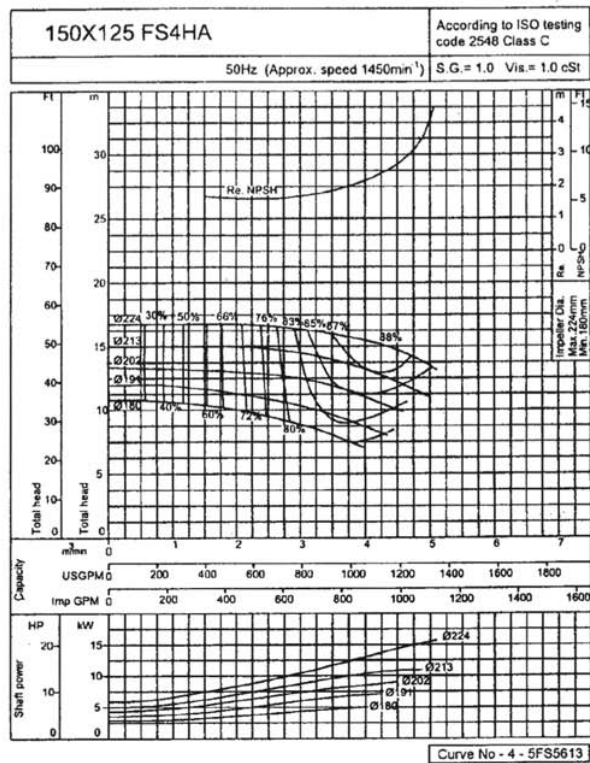
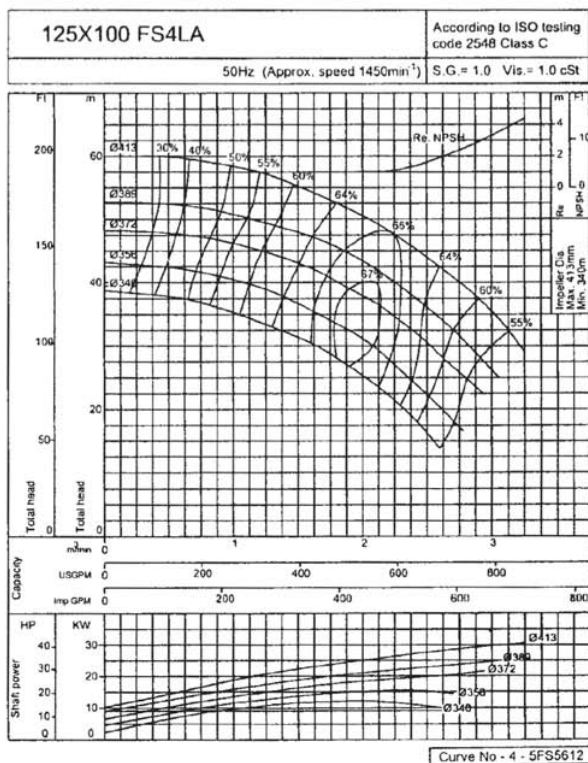
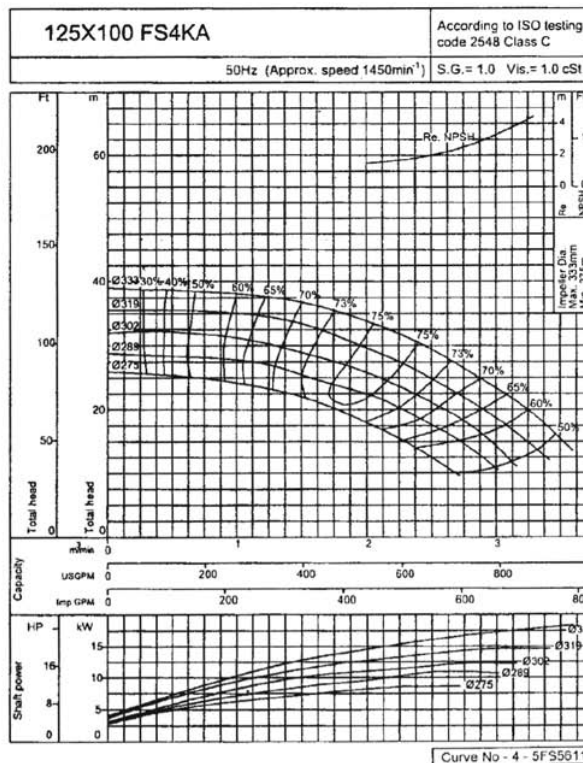
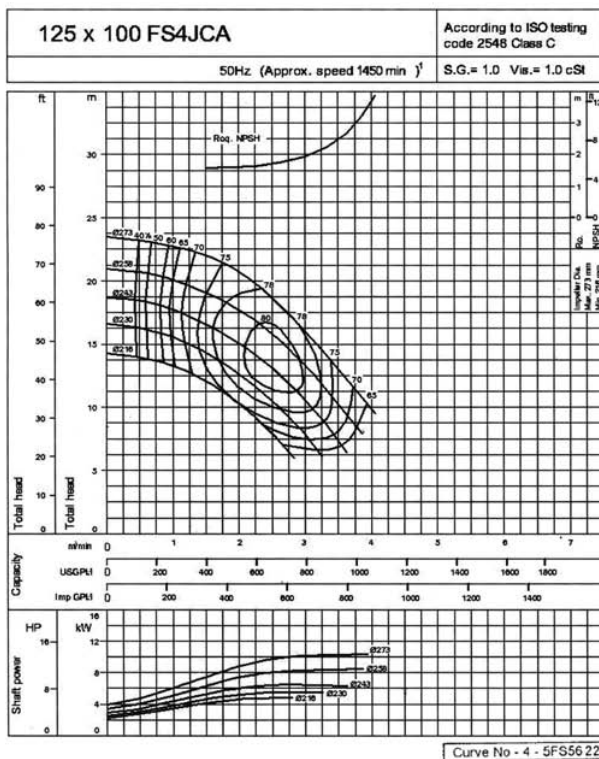
**1450 min<sup>-1</sup>**


# PERFORMANCE CURVE

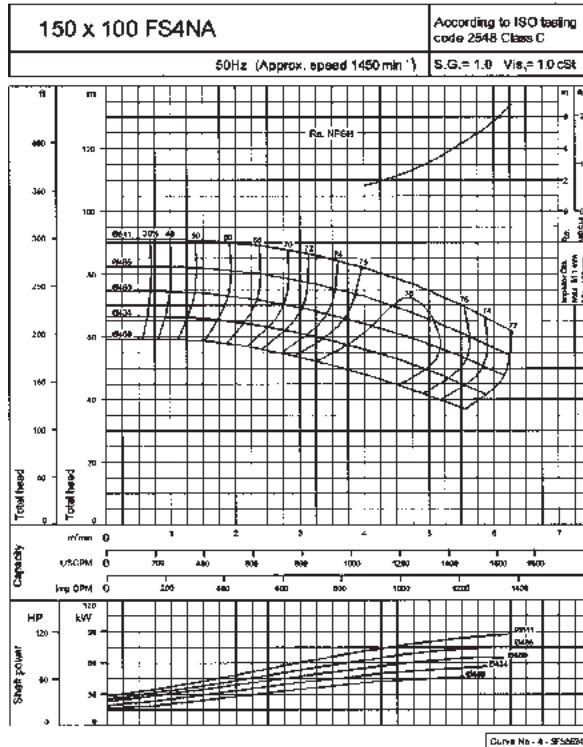
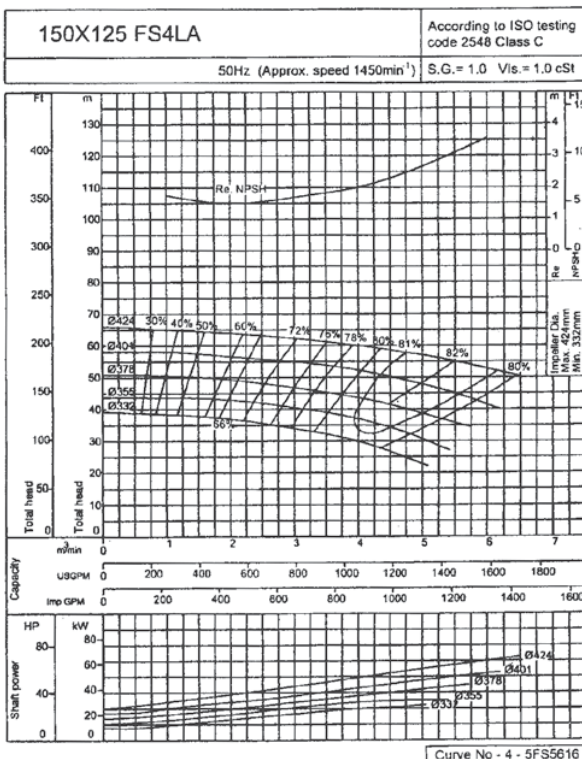
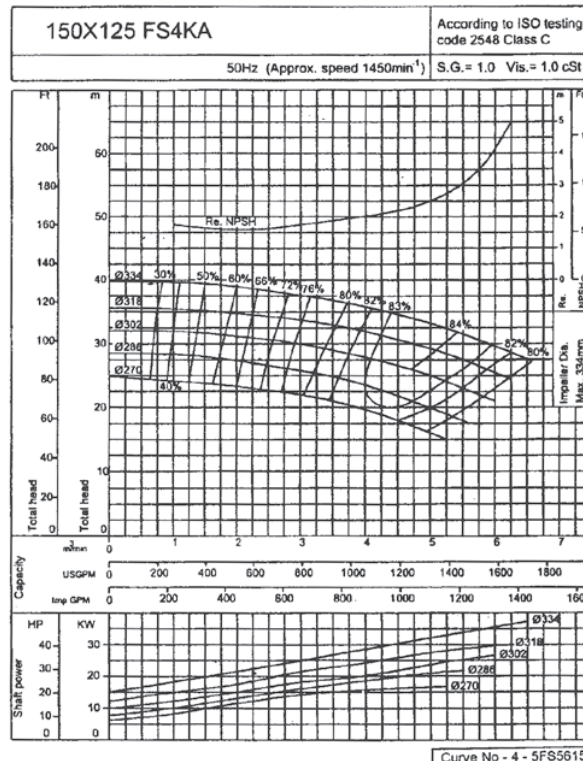
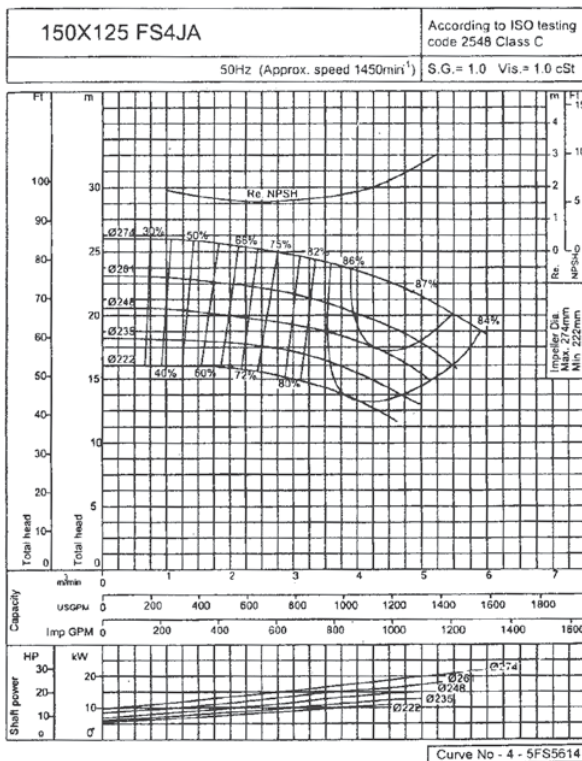
**1450 min<sup>-1</sup>**




# PERFORMANCE CURVE

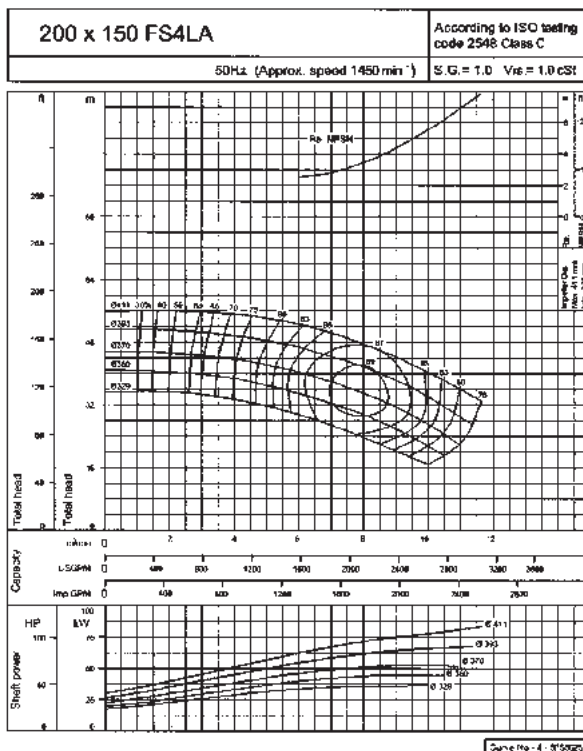
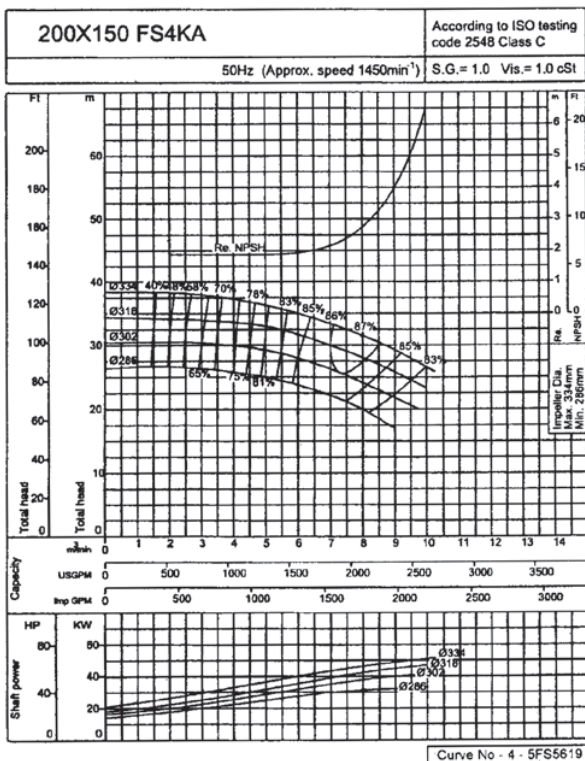
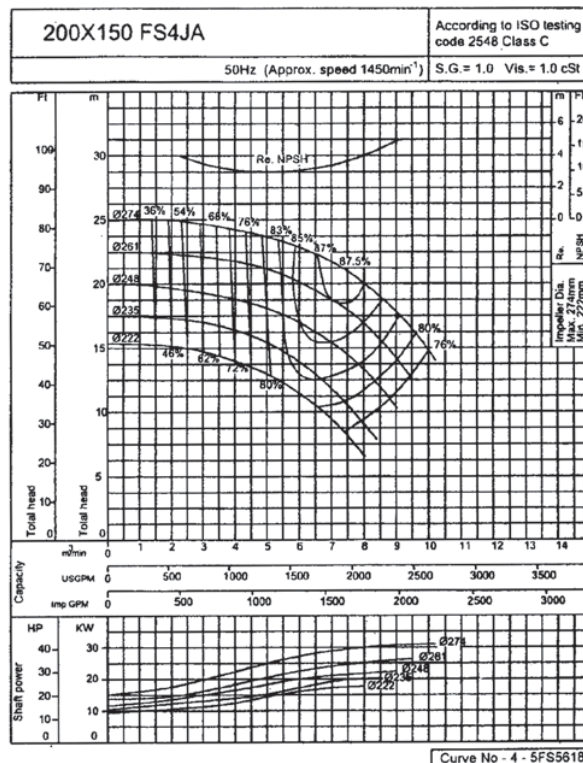
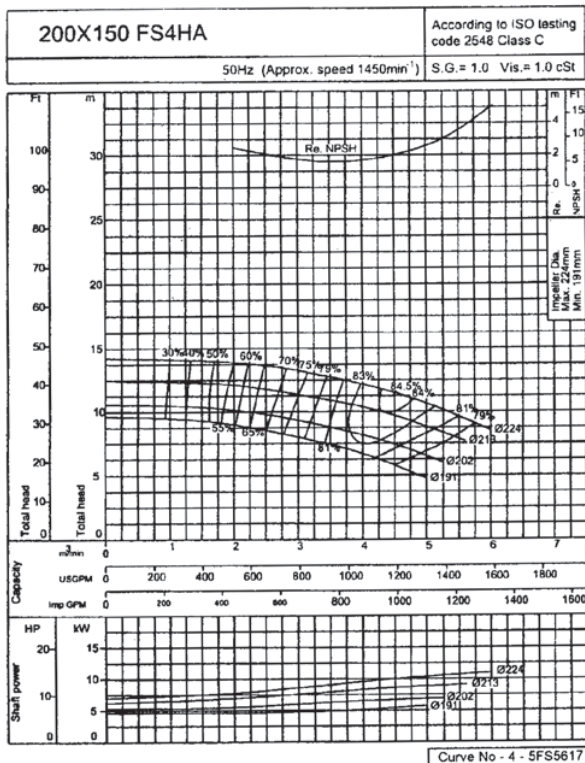
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# PERFORMANCE CURVE

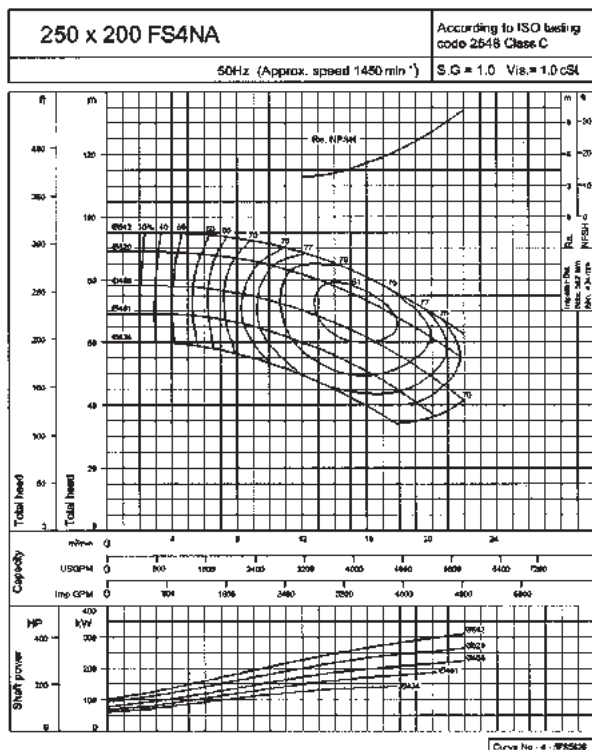
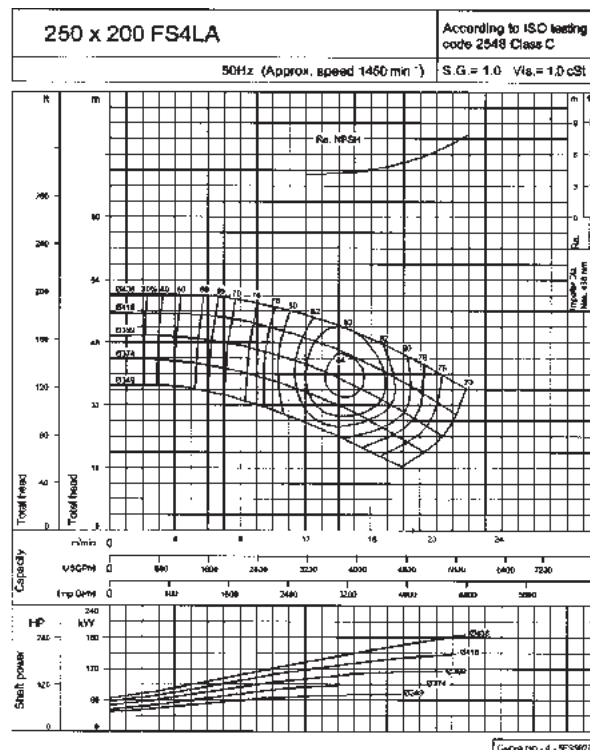
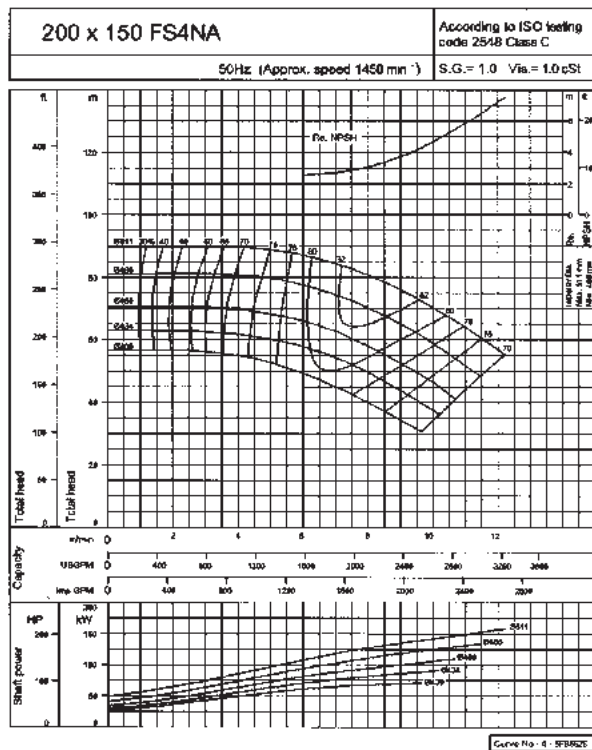
**1450 min<sup>-1</sup>**




# PERFORMANCE CURVE

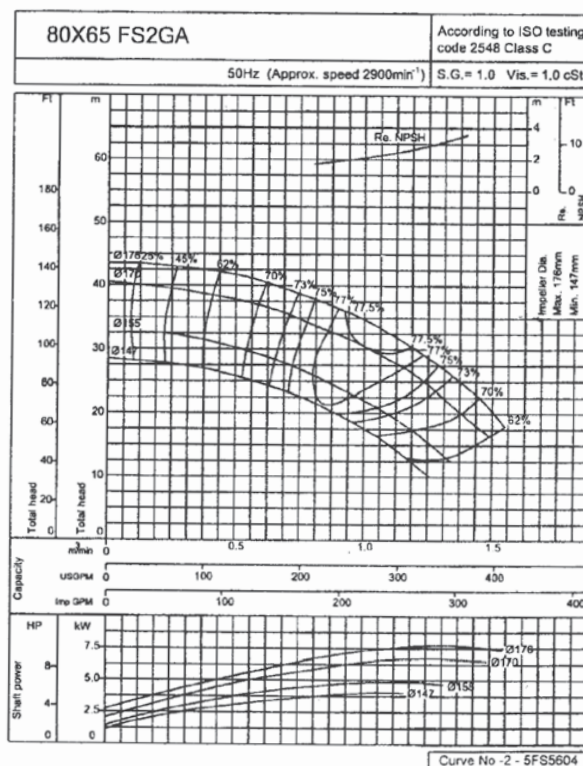
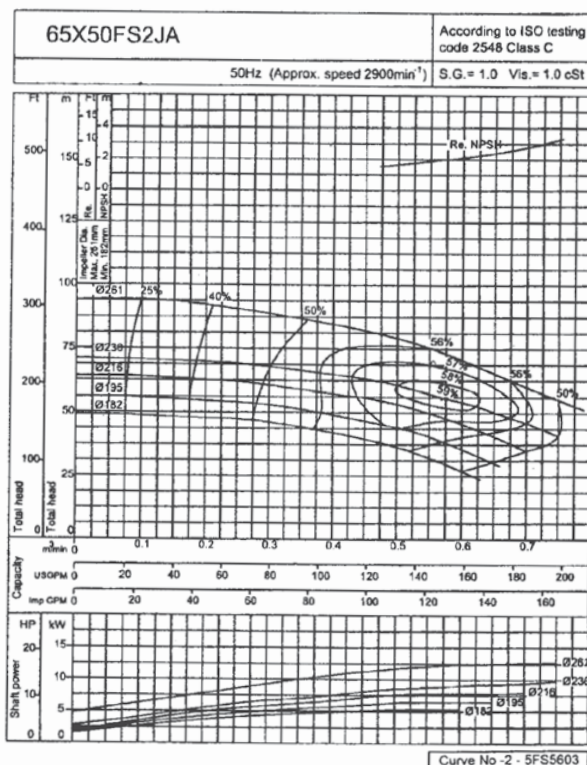
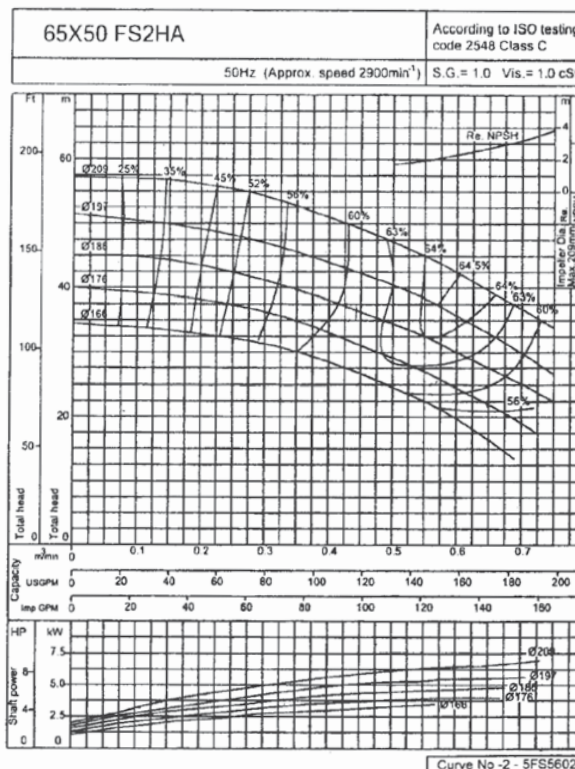
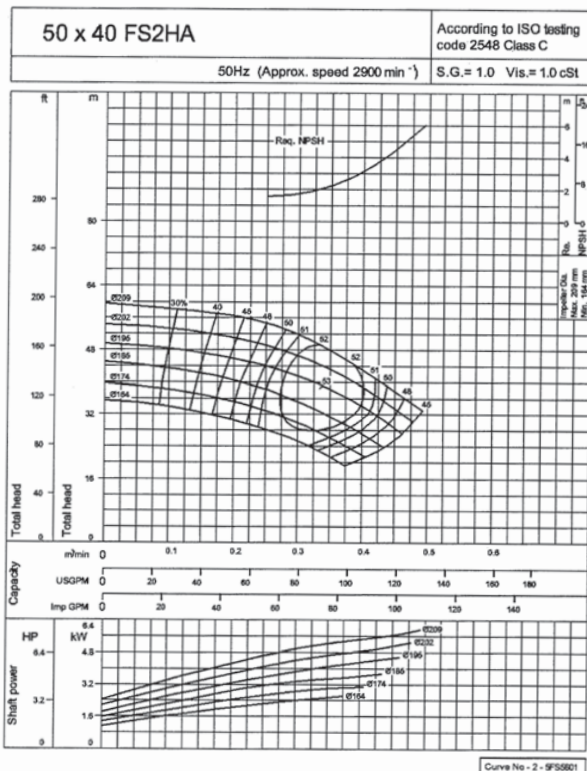
**1450 min<sup>-1</sup>**


# PERFORMANCE CURVE

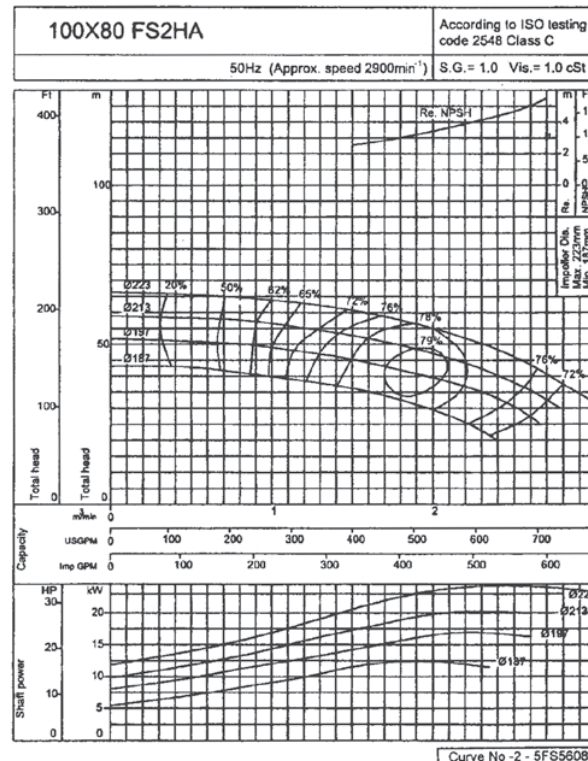
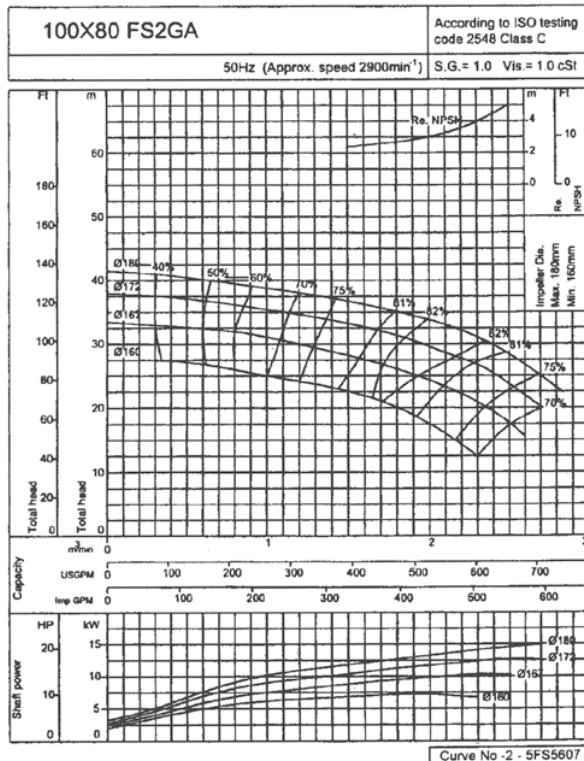
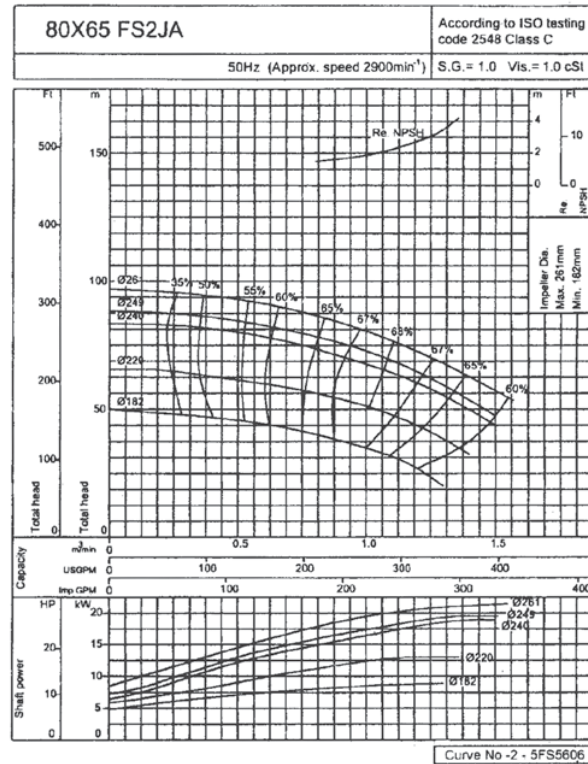
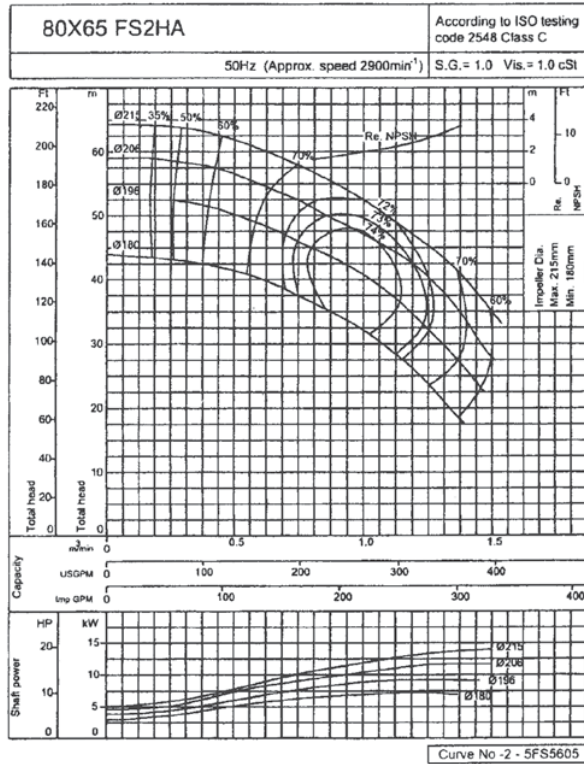
**1450 min<sup>-1</sup>**




# PERFORMANCE CURVE

**2900 min<sup>-1</sup>**


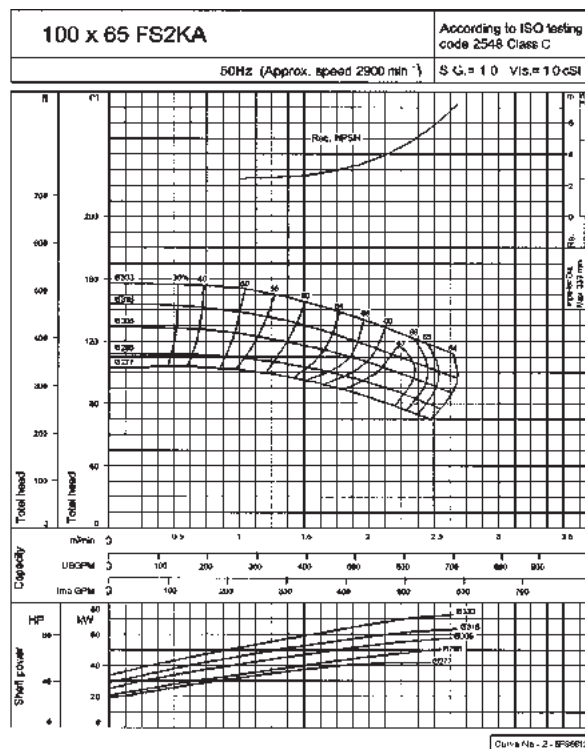
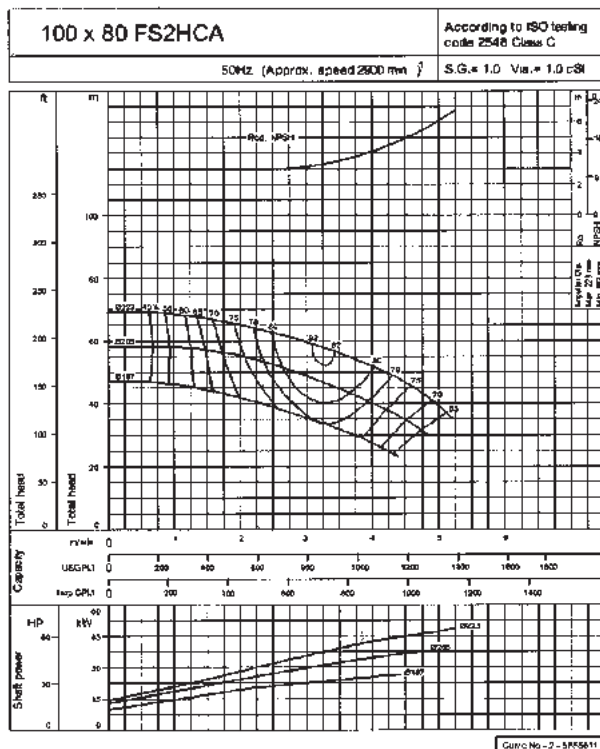
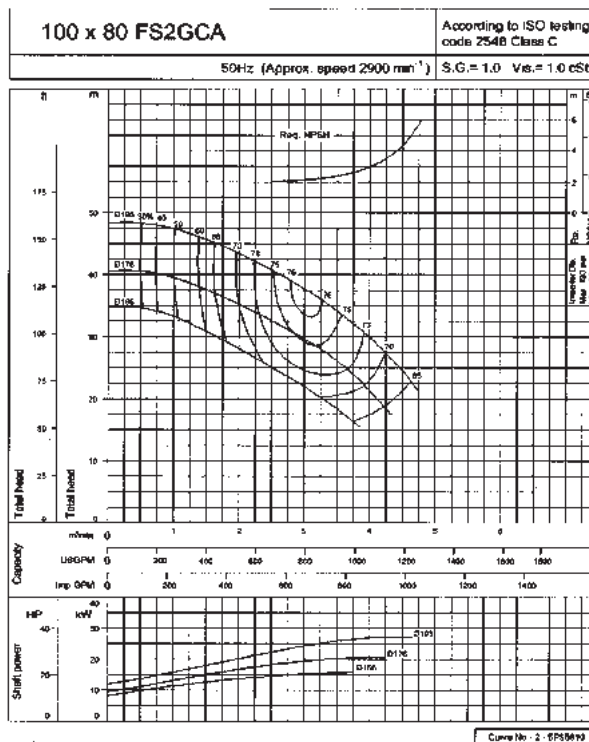
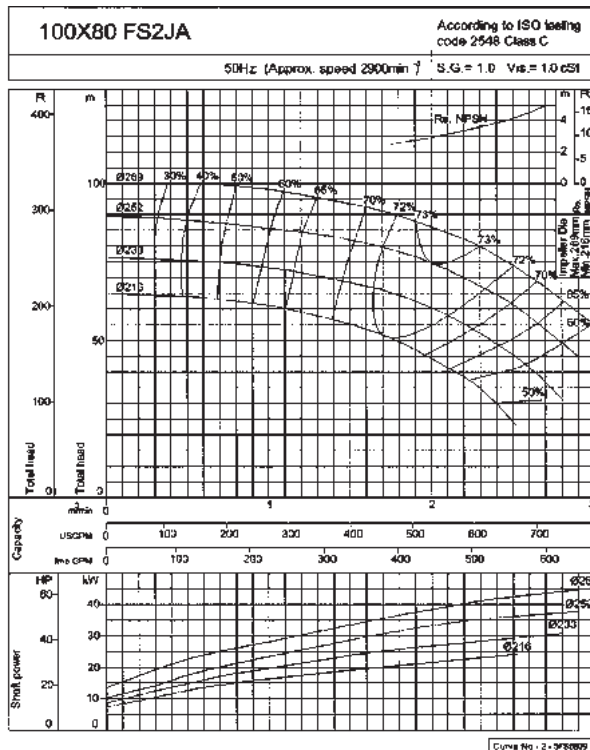
# PERFORMANCE CURVE

**2900 min<sup>-1</sup>**




# PERFORMANCE CURVE

2900 min<sup>-1</sup>



# PERFORMANCE CURVE

2900 min<sup>-1</sup>

