



**EBARA**

FP10CT- R4

# FIRE FIGHTING PUMP

## Model FSPA and CNPA

Compliance to NFPA 20



CENTRIFUGAL FIRE PUMP-END SUCTION



CENTRIFUGAL FIRE PUMP-SPLIT CASE



ISO 9001:2000  
Lic.No.QEC22090

**• FEATURES**

1. Non Overload design to ensure stable performance for all applications
2. Corrosion resistant materials used on the rotating parts
3. Hydraulically balanced impeller extends bearing life and assures smoother operation
4. Fully compliance to NFPA-20 and listed by Underwriters Laboratories (UL)

**• End Suction Pumps <sup>\*)</sup>**

1. Easy removal and maintenance, BPO (Back Pull Out) system allows all rotating elements to be removed without disconnecting suction and discharge pipe work.
2. Top centreline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads.
3. Flow rate capacity 250 up to 750 USGPM.
4. Working pressure up to 250 psi with 250 lb. ANSI Flanges.



<sup>\*)</sup> UL File Number "EX15585"

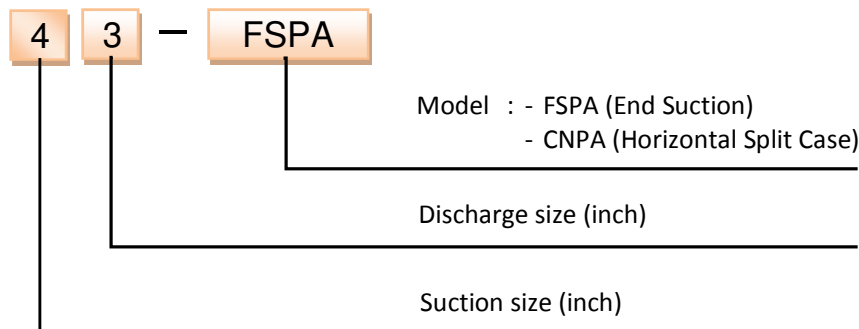
**• Horizontal Split Case Pumps <sup>\*\*)</sup>**



1. Very compact design for easy of installation and permits minimum maintenance.
2. Axially split casing allows the easy removal of the top casing for inspection and service.
3. Available in horizontal or vertical configuration.
4. Available in clockwise or counter clockwise rotation to simplify pump room layout.
5. Flow rate capacity 500 up to 1250 USGPM.
6. Working pressure up to 250 psi with 250 lb. ANSI Flanges.

<sup>\*\*)</sup> UL File Number "EX15584"

**• MODEL CODE**

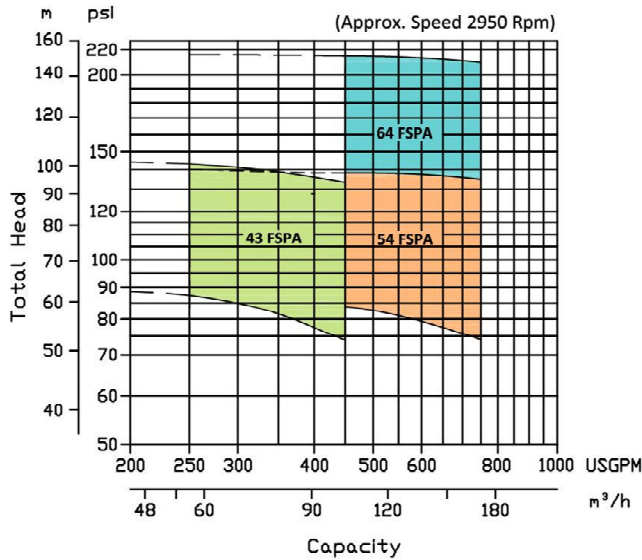


• **SPECIFICATIONS**

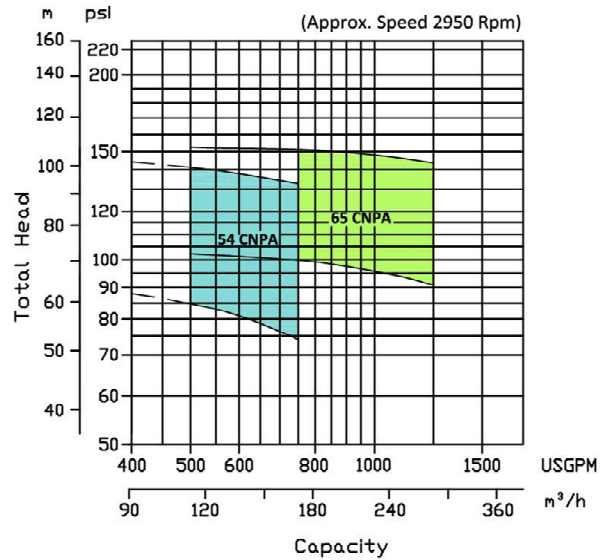
Item		Specifications	
Liquid handled property		Clean water, 0 – 80 °C (32 to 176 °F)	
Max. Working Pressure		250 psi	
Approx. speed		2950 rpm	
Construction	Impeller	Enclosed	
	Shaft seal	Gland Packing	
	Flushing	Self Flushing	
	Bearing	Shield Ball Bearing	
Flange	Suction	ANSI 250	
	Discharge	ANSI 250	
Material	Casing	Ductile Cast Iron (FCD450) for FSPA model Cast Iron (FC250) for CNPA model	
	Impeller	Bronze casting (CAC406)	
	Shaft	FSPA	Stainless Steel (SUS316)
		CNPA	Stainless Steel (SUS316)
	Shaft Sleeve	Bronze Casting (CAC406)	
Gland Packing	Teflon (PTFE) Impregnated		
Standard Accessories	Pressure Gauge	0 – 220 psi	
	Compound Gauge	-30 in Hg – 60 psi	
	Air Relieve Valve	standard	

• **SELECTION CHART**

End Suction Pump

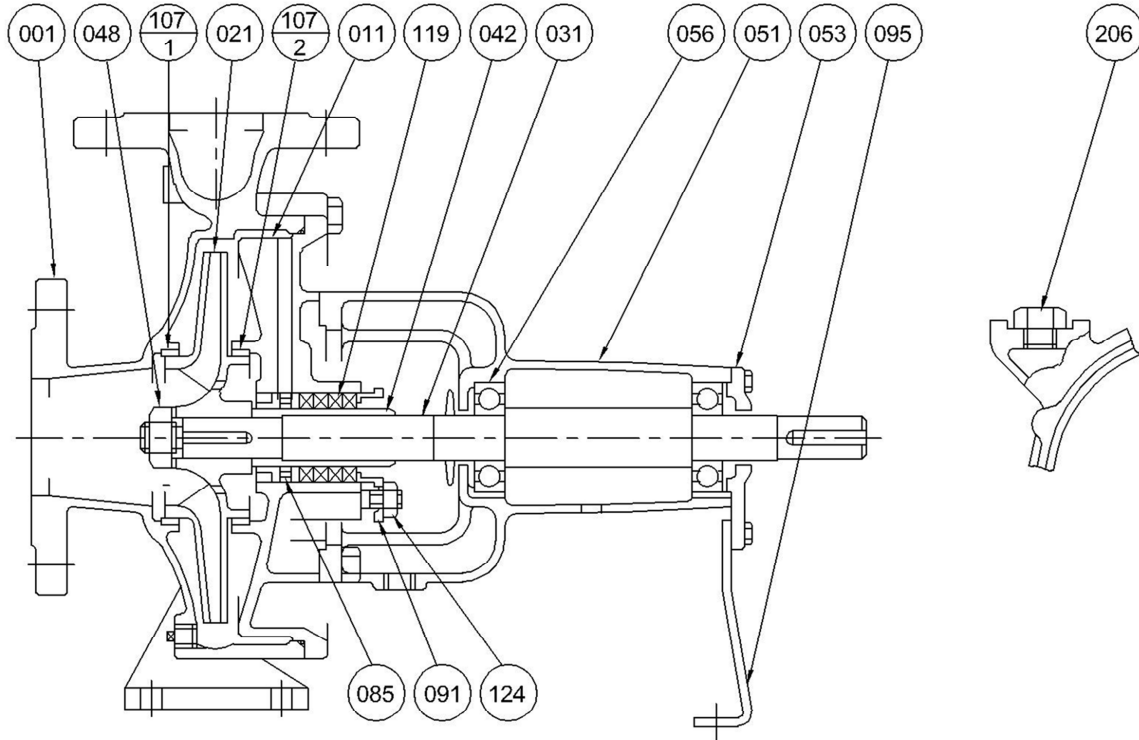


Split Case Pump



• SECTIONAL VIEW

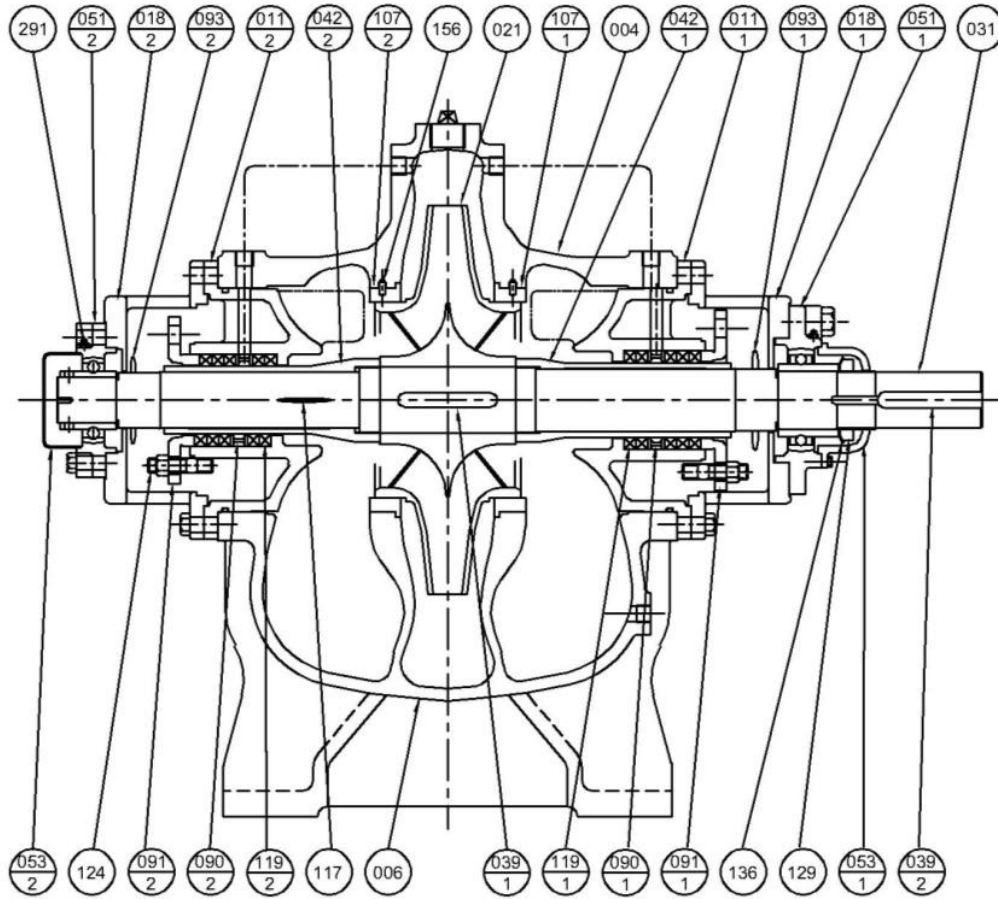
End Suction Pump



124	Gland bolt	Brass	2	119	Gland packing	Carbonized fibre	4-5
056	Ball bearing	-	2	091	Gland	Bronze (CAC406)	1
053	Bearing cover	Cast iron (FC200)	1	085	Lantern ring		
051	Bearing housing			042	Shaft sleeve		
048	Impeller nut	Brass		206	Priming plug		
031	Shaft	Stainless steel (SUS316)		107-2	Casing wear ring	Bronze (CAC406)	
021	Impeller	Bronze (CAC406)	107-1	Casing wear ring			
011	Casing cover	Ductile cast iron (FCD450)	1	095	Stay	Steel	
001	Casing						
No.	Part Name	Material	Qty	No.	Part Name	Material	Qty

• SECTIONAL VIEW

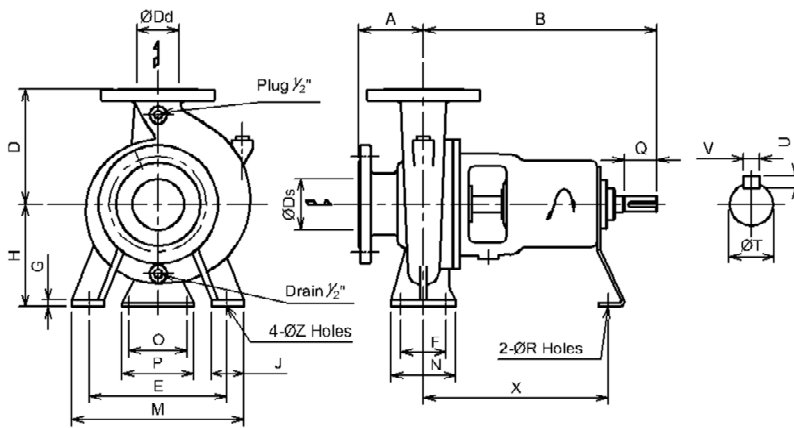
Horizontal Split Case Pump



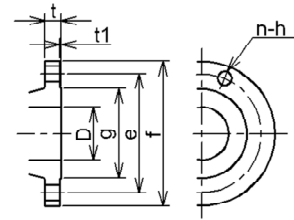
053-2	Bearing cover (CCP side)	Cast iron (FC200)	1	291	Grease nipple	C3604BD-F	2
053-1	Bearing cover (CP side)			156	Lock pin	SUS304	
051-2	Bearing unit (CCP side)	Cast iron	1	136	Bearing washer	Steel (SS400)	1
051-1	Bearing unit (CP side)			129	Bearing nut		
042-2	Shaft sleeve (CCP side)	Bronze (CAC406)	4	124	Gland bolt	C3604BD-F	5
042-1	Shaft sleeve (CP side)			119-2	Gland packing (CCP side)	Carbonized fibre	
039-2	Coupling key	Steel (S50C)	1	119-1	Gland packing (CP side)		V#6500
039-1	Impeller key	SUS420		117	Gasket (casing)		
031	Shaft	SUS316	1	107-2	Casing wear ring (CCP side)	Bronze (CAC406)	1
021	Impeller	Bronze (CAC406)		107-1	Casing wear ring		
018-2	Bearing support (CCP side)	Cast iron (FC200)	1	093-2	Deflector (CCP side)	Rubber	1
018-1	Bearing support (CP side)			093-1	Deflector (CP side)		
011-2	Side cover (CCP side)	Cast iron (FC250)	1	091-2	Gland (CCP side)	Bronze (CAC406)	1
011-1	Side cover (CP side)			091-1	Gland (CP side)		
006	Casing lower half	Cast iron (FC250)	1	090-2	Lantern ring (CCP side)	Bronze (CAC406)	1
004	Casing upper half			090-1	Lantern ring (CP side)		
No.	Part Name	Material	Qty	No.	Part Name	Material	Qty

• DIMENSION

End Suction Pump



Flange

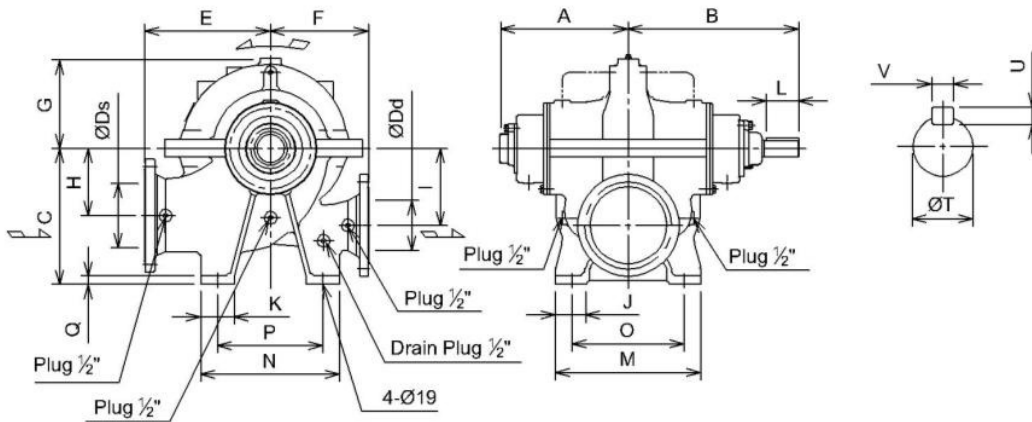


Unit: Inch (mm), unless otherwise stated

D	f	e	g	t1	t	n	h
3 (80)	8 1/4 (210)	6 5/8 (168)	5 11/16 (144)	1/16 (1.6)	1 1/8 (29)	8	7/8 (22)
4 (100)	10 (254)	7 7/8 (200)	6 5/8 (176)	1/16 (1.6)	1 1/4 (32)	8	7/8 (22)
5 (125)	11 (279)	9 1/4 (235)	8 5/16 (211)	1/16 (1.6)	1 3/8 (35)	8	7/8 (22)
6 (150)	12 1/2 (381)	10 5/8 (270)	9 11/16 (246)	1/16 (1.6)	1 7/16 (37)	12	7/8 (22)

Model	Size		Pump													Shaft				Wt kg		
	Ds	Dd	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q		U	V
43 FSPA	4	3	3 15/16	14 3/16	7 7/8	9 7/8	11	4 3/4	9/16	3 1/8	14 3/16	6 5/16	4 5/16	5 7/8	11/16	11 1/4	3/4	1 1/4	3 1/8	5/16	3/8	70
	(100)	(80)	(100)	(360)	(200)	(250)	(280)	(120)	(15)	(80)	(360)	(160)	(110)	(150)	(17)	(285)	(19)	(32)	(80)	(8)	(10)	
54 FSPA	5	4	5 1/2	14 3/16	8 7/8	11	12 3/8	4 3/4	9/16	3 1/8	15 3/4	6 5/16	4 5/16	5 7/8	11/16	14 9/16	3/4	1 5/8	3 3/4	5/16	3/8	125
	(125)	(100)	(140)	(360)	(225)	(280)	(315)	(120)	(15)	(80)	(400)	(160)	(110)	(150)	(17)	(370)	(19)	(42)	(95)	(8)	(12)	
64 FSPA	6	4	5 1/2	20 7/8	9 7/8	12 3/8	12 3/8	4 3/4	9/16	3 1/8	15 3/4	6 5/16	4 5/16	5 7/8	11/16	14 9/16	3/4	1 5/8	3 3/4	5/16	3/8	146
	(150)	(100)	(140)	(530)	(250)	(315)	(315)	(120)	(15)	(80)	(400)	(160)	(110)	(150)	(17)	(370)	(19)	(42)	(95)	(8)	(12)	

Horizontal Split Case Pump



Unit: Inch (mm), unless otherwise stated

Model	Size		Pump													Shaft				Wt kg		
	Ds	Dd	A	B	C	E	F	G	H	I	J	K	M	N	O	P	Q	L	T		U	V
54 CNPA	5	4	12 13/16	17 11/16	11 5/8	11 13/16	9 7/8	7 11/16	5 7/8	6 5/16	2 3/8	2 3/4	11 13/16	11 7/16	9 7/8	9 1/16	13/16	3 1/8	1 1/2	5/16	3/8	249
	(125)	(100)	(326)	(450)	(295)	(300)	(250)	(195)	(150)	(160)	(60)	(70)	(300)	(290)	(250)	(230)	(20)	(80)	(38)	(8)	(10)	
65 CNPA	6	5	14 5/16	19 7/8	13 15/16	13	10 1/4	8 13/16	7 1/2	7 1/2	3 1/8	3 9/16	14 15/16	14 3/16	12 3/16	10 5/8	1	3 9/16	1 7/8	3/8	9/16	283
	(150)	(125)	(364)	(505)	(355)	(330)	(260)	(224)	(190)	(190)	(80)	(90)	(380)	(360)	(310)	(270)	(25)	(90)	(48)	(9)	(14)	

• **SELECTION DATA**

End Suction Pump

Flow Rate	Head	Pump Model	Max. Power at 2950 rpm	Electric motor	
	PSI (kPa)		HP	RPM	HP
250 USGPM (57 m <sup>3</sup> /h)	88 (607)	43 FSPA	25	2950	25
	105 (724)		33		40
	129 (889)		42		50
	144 (993)		51		60
300 USGPM (68 m <sup>3</sup> /h)	85 (586)	43 FSPA	27	2950	30
	104 (717)		36		40
	127 (876)		45		50
	143 (986)		55		60
400 USGPM (91 m <sup>3</sup> /h)	78(538)	43 FSPA	31	2950	40
	96(662)		41		50
	121 (834)		54		60
	136 (938)		64		75
450 USGPM (102 m <sup>3</sup> /h)	73 (503)	43 FSPA	34	2950	40
	92 (634)		45		60
	117 (807)		58		60
	133 (917)		67		75
500 USGPM (113 m <sup>3</sup> /h)	80 (552)	54 FSPA	49	2950	60
	107 (738)		67		70
	119 (820)		77		100
	138 (952)		93		100
	132 (910)	64 FSPA	77	2950	100
	152 (1048)		93		100
	172 (1186)		105		125
	194 (1338)		122		125
	215 (1482)		141		150
750 USGP (170 m <sup>3</sup> /h)	74 (510)	54 FSPA	53	2950	60
	101 (696)		78		100
	113 (779)		91		100
	132 (910)		113		125
	119 (821)	64 FSPA	89	2950	100
	141 (972)		112		125
	162 (1117)		134		150
	187 (1289)		154		175
	210 (1448)		177		200

• **SELECTION DATA**

Horizontal Split Case Pump

Flow Rate	Head	Pump Model	Max. Power at 2950 rpm	Electric motor	
	PSI (kPa)		HP	RPM	HP
500 USGPM (113 m <sup>3</sup> /h)	83 (558)	54 CNPA	47	2950	50
	91 (627)		53		60
	103 (710)		60		75
	117 (807)		64		75
	130 (896)		74		100
	141 (944)		80		100
750 USGPM (170 m <sup>3</sup> /h)	75 (476)	54 CNPA	54	2950	60
	83 (572)		61		75
	95 (614)		69		75
	109 (752)		79		100
	122 (841)		90		100
	133 (882)		97		125
	100 (669)	65 CNPA	93	2950	100
	112(772)		105		125
	124 (855)		116		125
	137 (945)		126		150
150 (1034)	138	150			
1000 USGPM (227 m <sup>3</sup> /h)	94 (634)	65 CNPA	98	2950	100
	107 (738)		114		125
	121 (834)		128		150
	135 (931)		145		150
	149 (979)		160		175
1250 USGPM (284 m <sup>3</sup> /h)	91 (586)	65 CNPA	100	2950	100
	104 (717)		115		125
	117 (807)		135		150
	130 (896)		150		150
	144 (944)		177		200

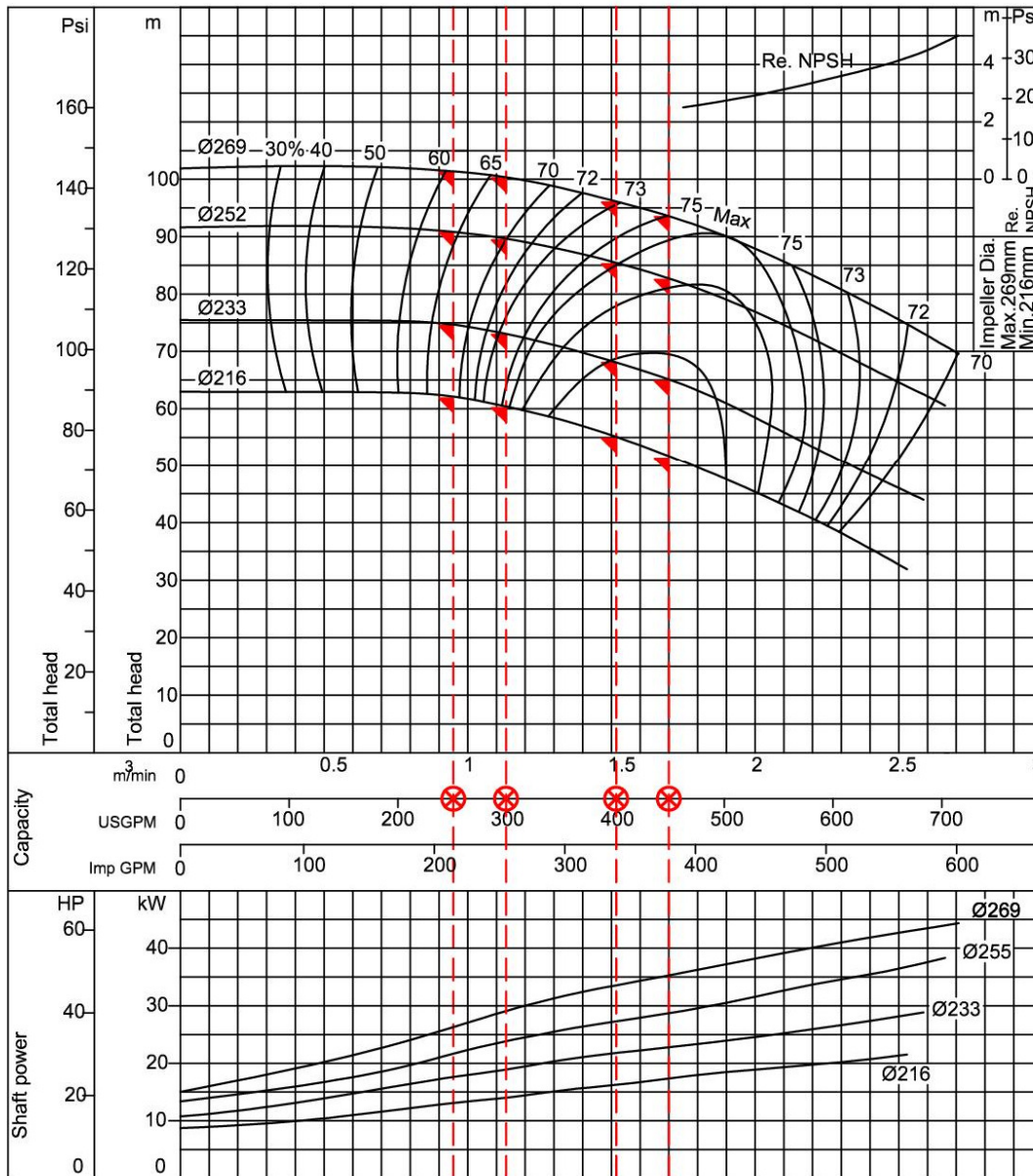
# Ebara End Suction Centrifugal Pump

# Model FSPA

## Performance Curve

50Hz

<b>43 FSPA</b>	According to ISO testing code 2548 Class C
50Hz (Approx. speed 2950 min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



Curve No-1-FSP5609R2



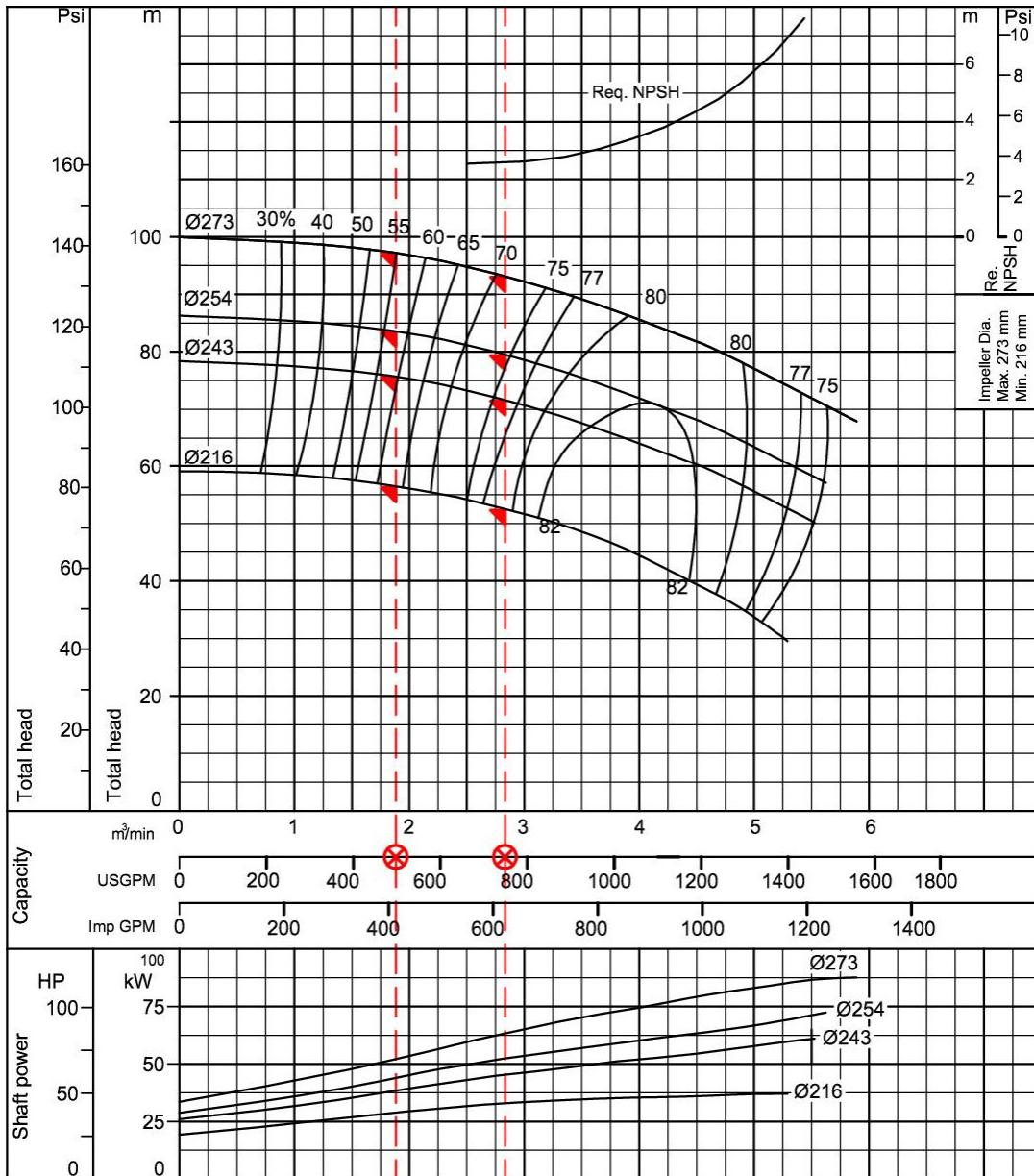
# Ebara End Suction Centrifugal Pump

# Model FSPA

## Performance Curve

50Hz

<b>54 FSPA</b>	According to ISO testing code 2548 Class C
50Hz (Approx. speed 2950 min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



Curve No-2-FSP5613R2



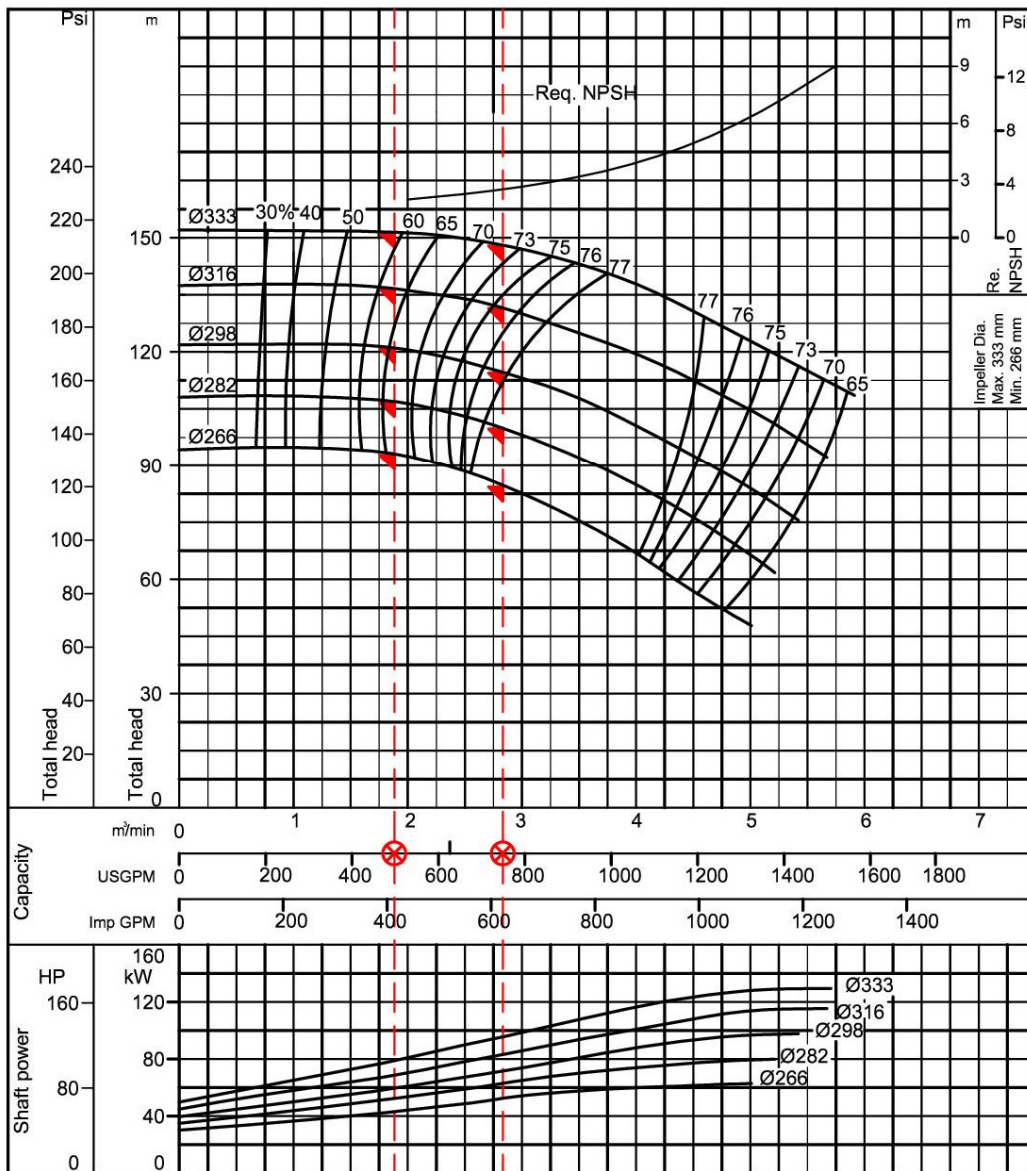
# Ebara End Suction Centrifugal Pump

# Model FSPA

## Performance Curve

50Hz

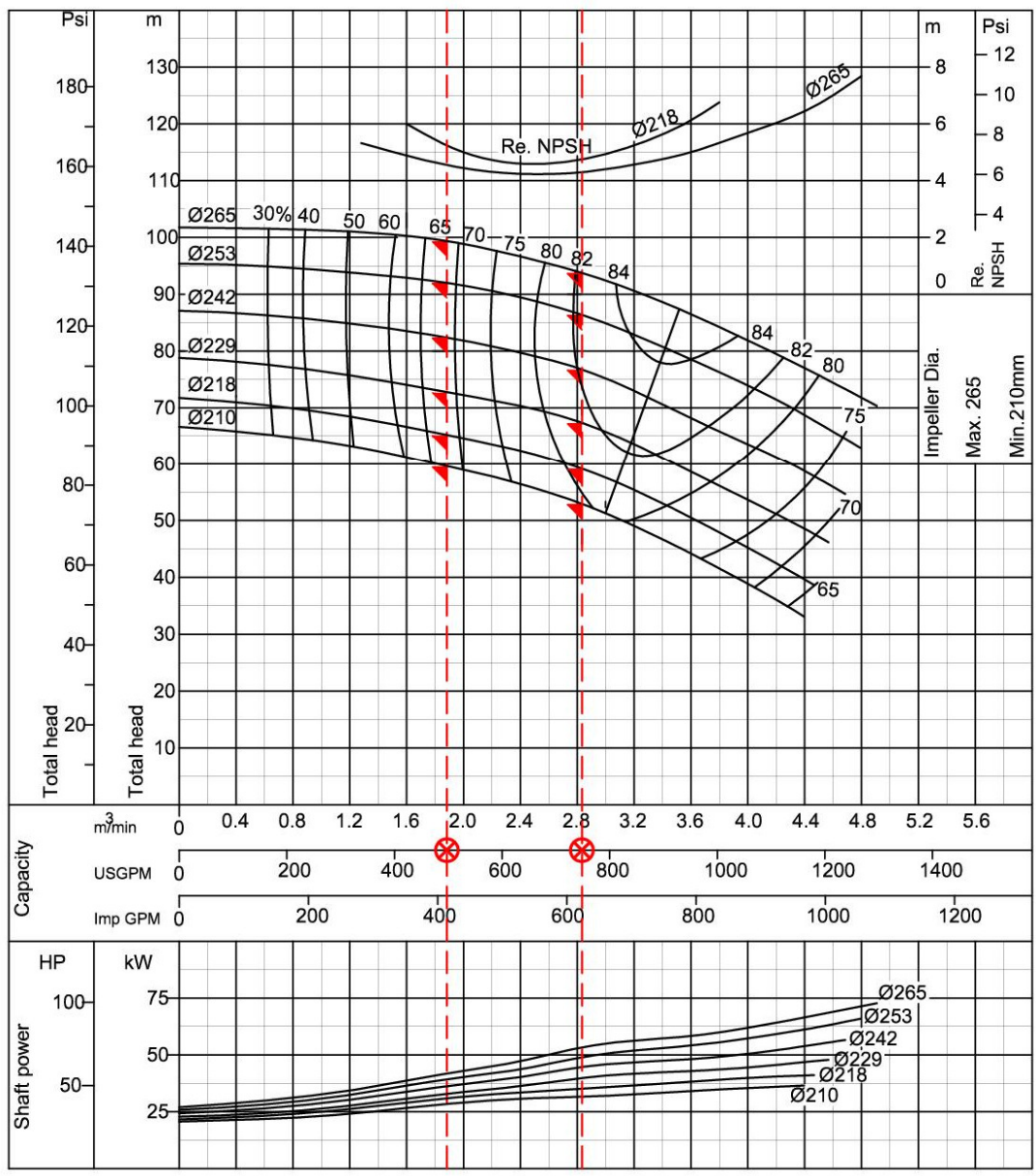
<b>64 FSPA</b>	According to ISO testing code 2548 Class C
50Hz (Approx. speed 2950 min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



Curve No-3-FSP5614R2



<b>54 CNPA</b>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 2950min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



Curve No-1-CNP5604R2



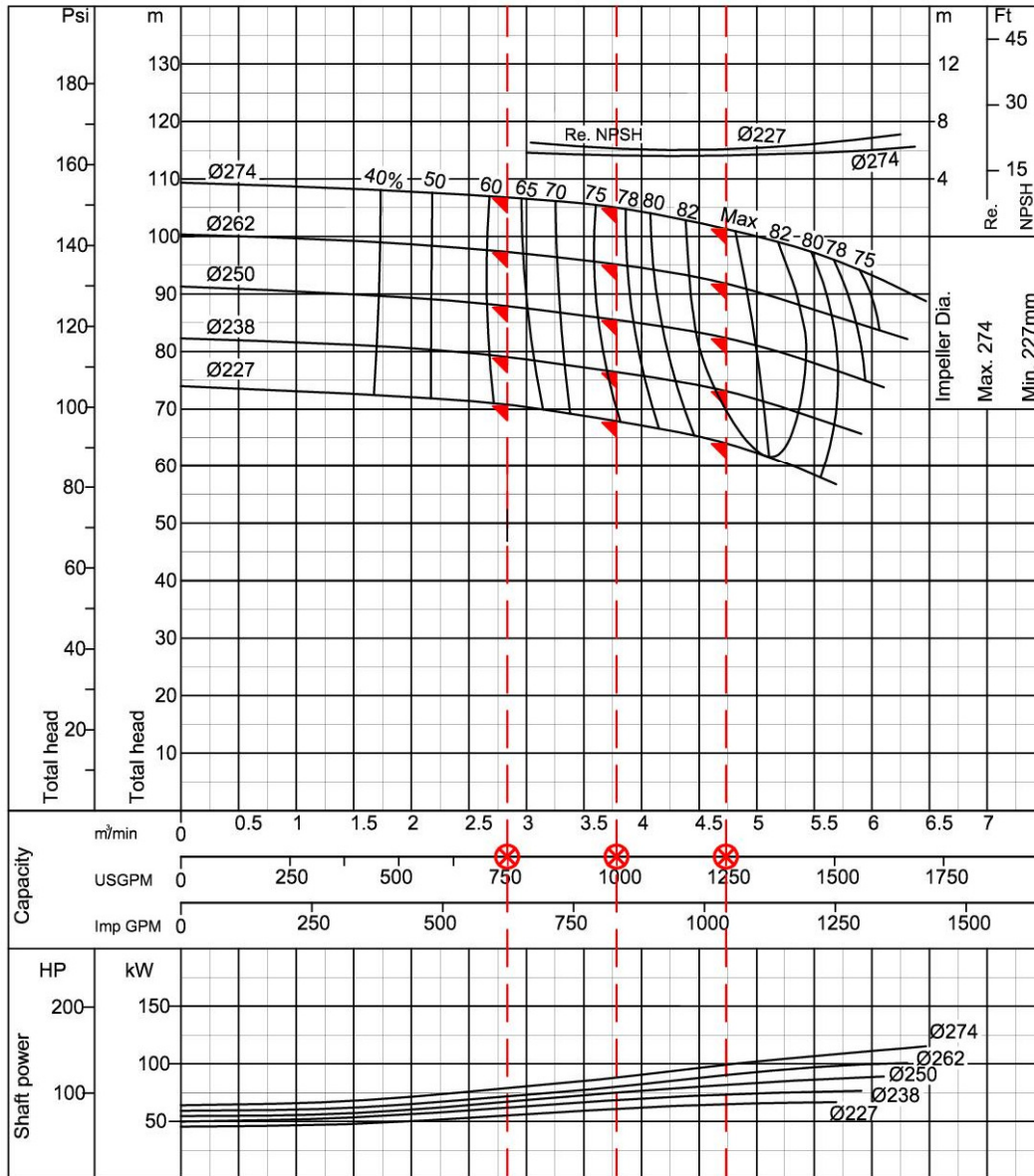
Ebara Horizontal Split Casing Pump

Model **CNPA**

Performance Curve

50Hz

<b>65 CNPA</b>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 2900min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



Curve No-2-CNP5607R2





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