



EBARA



ISO 9001 : 2000
Lic. No : QEC22090



FS 8005-56 Rev. 3

TECHNICAL DATA BOOK EBARA END SUCTION VOLUTE PUMP

MODEL FSA

SUCTION SIZE 50 ~ 250 MM

50/60HZ



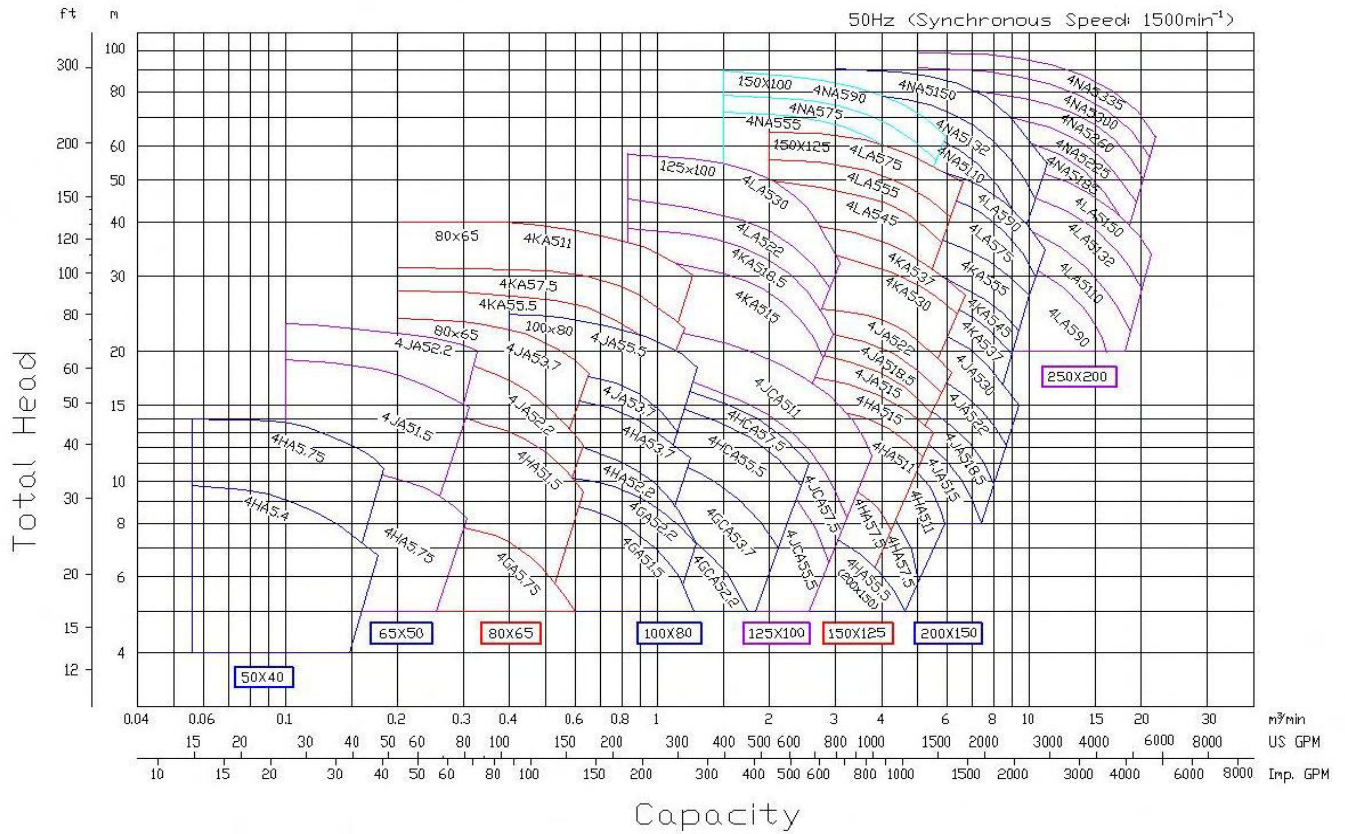
Features

1. Easy removal and maintenance, BPO (Back Pull Out) system allows all rotating elements to be removed without disconnecting suction and discharge pipework.
2. Top centerline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads
3. Non-overload design to ensure stable performance for all applications
4. Wider range application with flow capacity up to 22 m³/min.
5. Higher working pressure up to 16 bar.

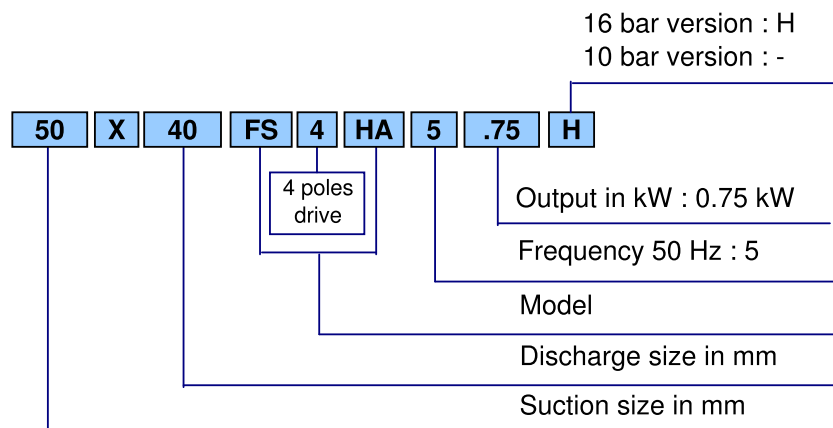
Applications

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

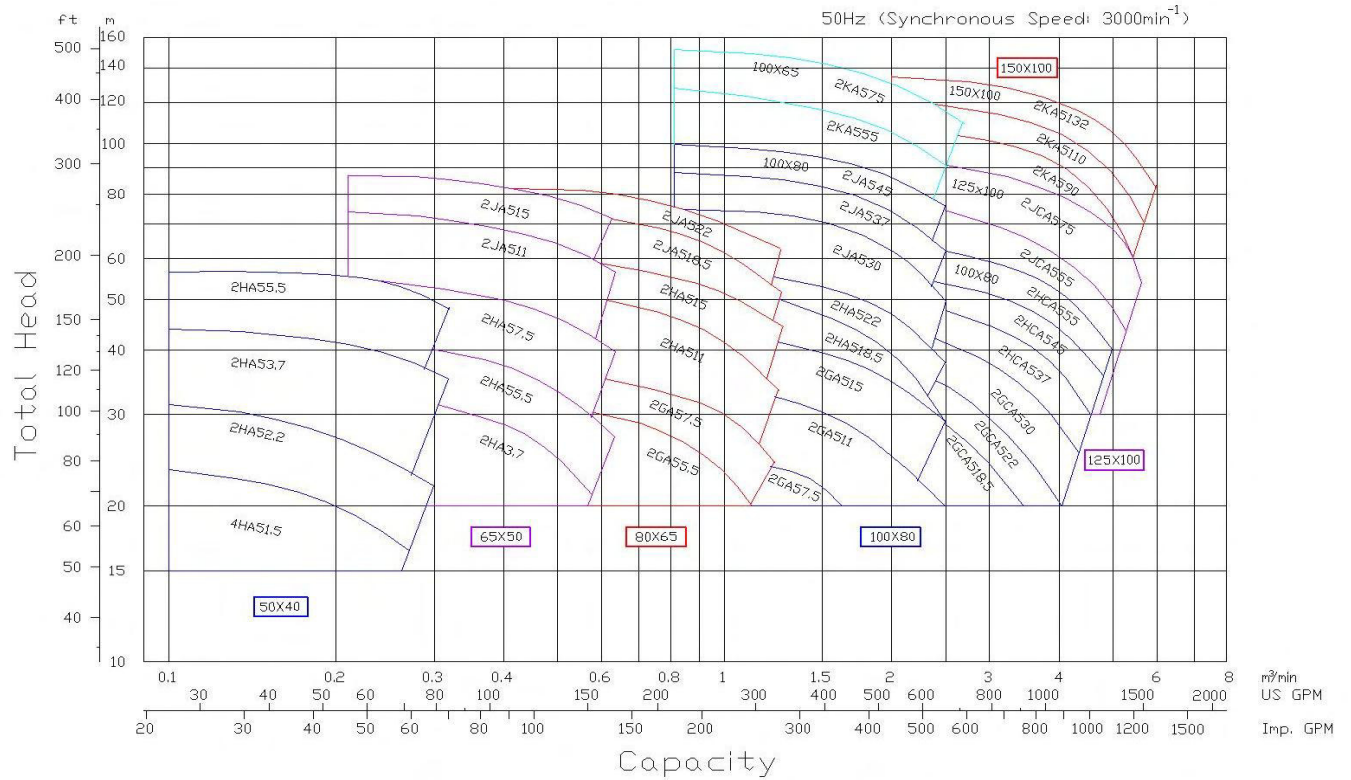
Performance Chart - 4 Poles - 50 Hz



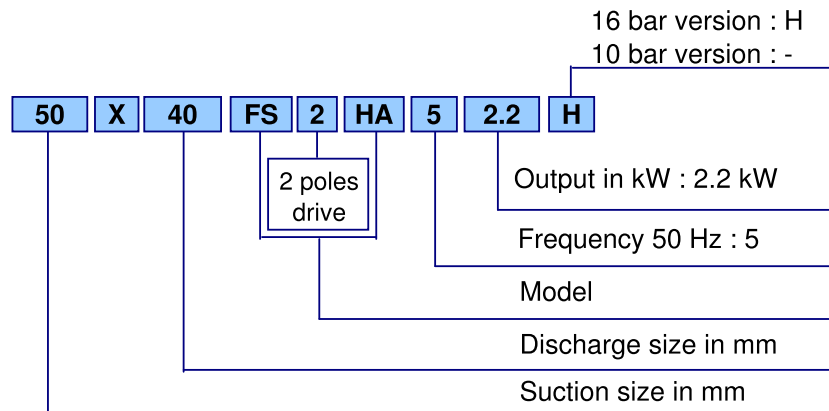
Model Code - 4 Poles - 50 Hz



Performance Chart - 2 Poles - 50 Hz



Model Code - 2 Poles - 50 Hz



Description		Standard		Optional	
		2 poles model	4 poles model	2 poles model	4 poles model
Liquid	Name	Clean water			
	Temperature	0 to 100 °C (32 to 212 °F)			
Max. Working Pressure		10 bar (10.2 kgf/cm ²) for standard flange JIS 10K RF		16 bar (16.3 kgf/cm ²)	
		16 bar (16.3 kgf/cm ²) for standard flange JIS 16K RF			
Synchronous Speed		3000 min ⁻¹	1500 min ⁻¹		
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 < φ 150 mm, except 100x65 FSKA	: JIS 10K RF	16 bar : JIS 16K RF; DIN PN-16	
		100x65 FSKA	: JIS 16K RF	DIN PN-16	
		Suction = φ 150 mm, 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 = φ 200 mm, 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 = φ 250	: JIS 16K RF	DIN PN-16			
Material	Casing	Cast Iron		Ductile Cast Iron (FCD)	
	Impeller	Bronze Casting (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 Mechanical Seal : SiC/SiC	
Accessories	Bare shaft			Priming funnel ; valve; Companion Flange	
	With motor	Common base, Coupling, Coupling guard		Priming funnel ; valve; Companion Flange	

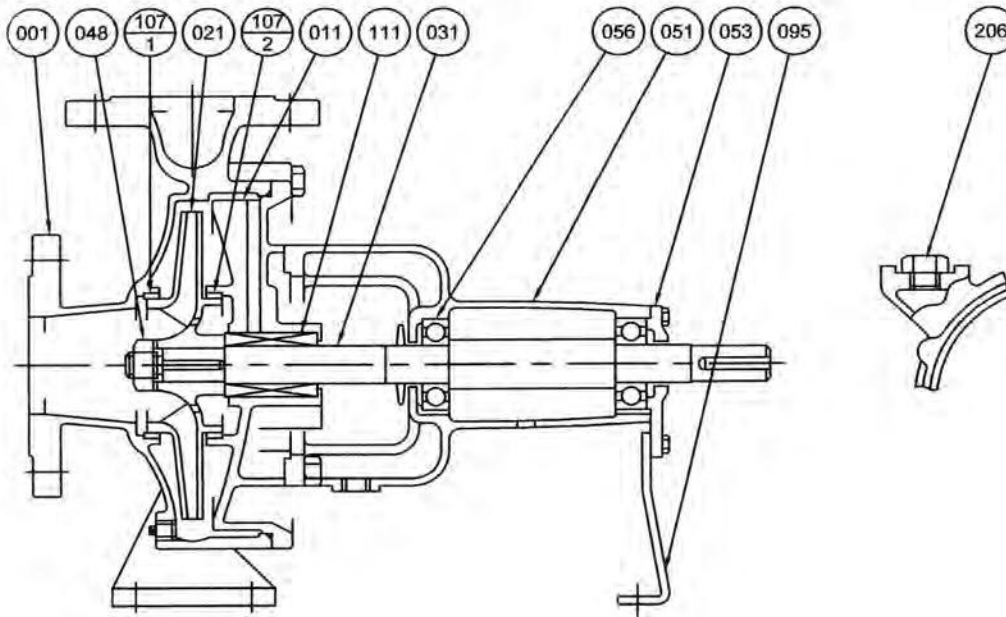
Model	10 Bar version						16 Bar version					
	Material					Hydro Test	Material					Hydro Test
	Casing	Impeller		Shaft			Casing	Impeller		Shaft		
	Standard	Option	Standard	Option	kg/cm2		Standard	Option	Standard	Option	kg/cm2	
50x40 FSHA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
65x50 FSHA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
65x50 FSJA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
80x65 FSGA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
80x65 FSHA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
80x65 FSJA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
80x65 FSKA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
100x80 FSGA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
100x80 FSHA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
100x80 FSJA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
100x65 FSKA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
100x80 FSGCA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
100x80 FSHCA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
125x100 FSJCA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
125x100 FSKA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5
125x100 FSLA	Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	15.3	Ductile Cast Iron	Bronze	Cast Iron	403 St. Steel	304; 316 St. Steel	24.5

Ebara End Suction Volute Pump

Model FSA

Sectional View - 50x40 FSHA; 65x50 FSHA, FSJA;
 80x65 FSGA, FSHA, FSJA, FSKA;
 100x80 FSGA, FSHA, FSJA; 125x100 FSKA

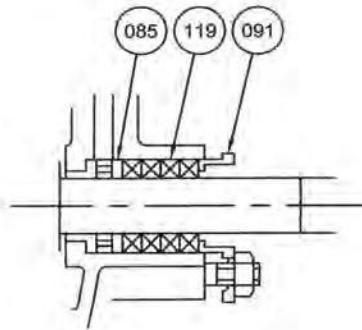
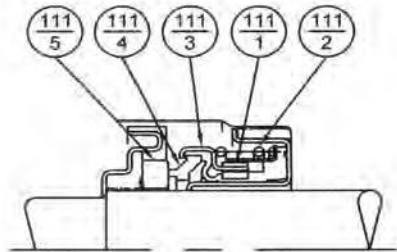
50/60 Hz



Mechanical Seal Type (Standard)

Model FH

Gland Packing Type (Option)

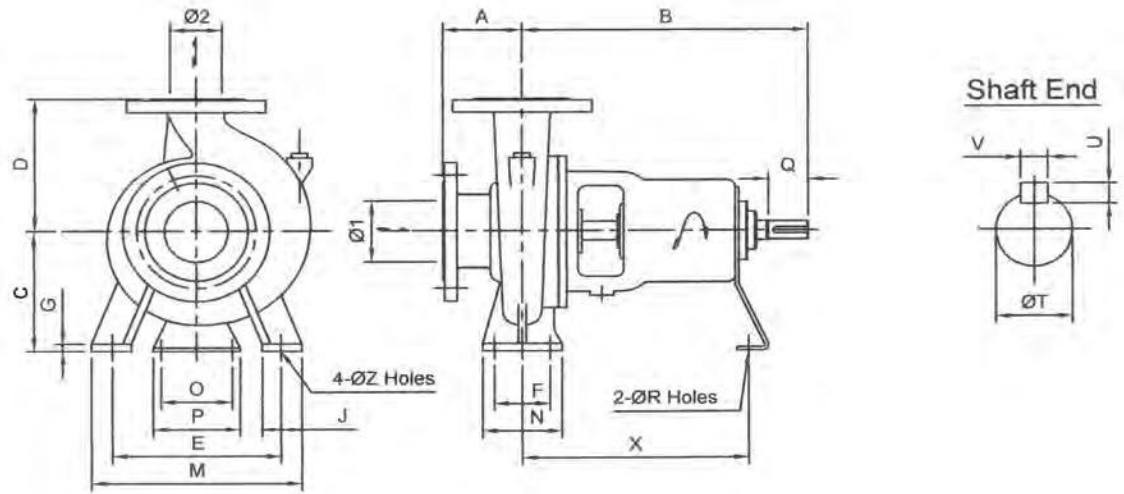


111-5	Mating Ring	Ceramic	1
111-4	Seal Ring	Carbon	
111-3	Friction Ring	NBR	
111-2	Coil Spring	Stainless Steel	
111-1	Spring Holder		
No.	Part Name	Material	Qty

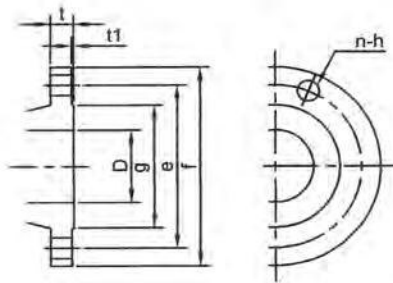
119	Gland Packing	-	4 or 5
091	Gland	Bronze	1
085	Lantern Ring Bushing		
No.	Part Name	Material	Qty

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

Pump



Flange



Dimension - Flange (JIS 10K RF)

D mm	f mm	e mm	g mm	t1 mm	t mm	n	h 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 kg	
	φ1	φ2	A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V		
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	212	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										125	49
80x65 FSGA	80	65	100	360	160	180	212	70	12	50	265	100	110	150	17	285	15	24	50	7	8	39	
80x65 FSHA					200	225	250	95	14	65	320	125										110	60
80x65 FSJA					180	225	250	95	14	65	320	125										110	60
80x65 FSKA					225	280	315	120	16	80	400	160										160	108
100x80 FSGA	100	80	100	360	160	200	212	95	14	65	280	125	110	150	17	285	15	24	50	7	8	49	
100x80 FSHA					180	225	250	95	15	80	320	125										15	62
100x80 FSJA					200	250	280	120	15	80	360	160										110	70
100x80 FSGCA					225	250	95	14	65	320	125	15										32	62
100x80 FSHCA					250	280	95	14	65	345	125	15										32	65
125x100 FSJCA	125	100	140	360	225	280	315	120	16	80	400	160	110	150	17	285	19	32	80	8	10	108	
125x100 FSKA				250	315	315	120	16	80	400	160	110										128	
125x100 FSLA				530	280	355	400	150	20	100	500	200										168	
150x125 FSHA	150	125	140	470	315	315	120	15	80	400	160	110	150	17	370	19	32	80	8	10	120		
150x125 FSJA					355	315	120	16	80	400	160	110									150	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	