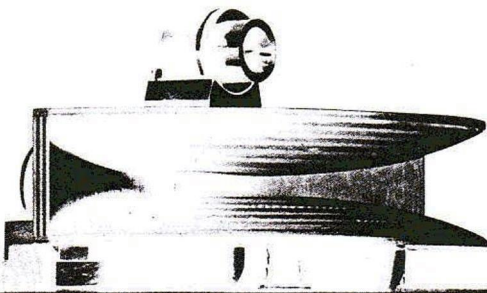
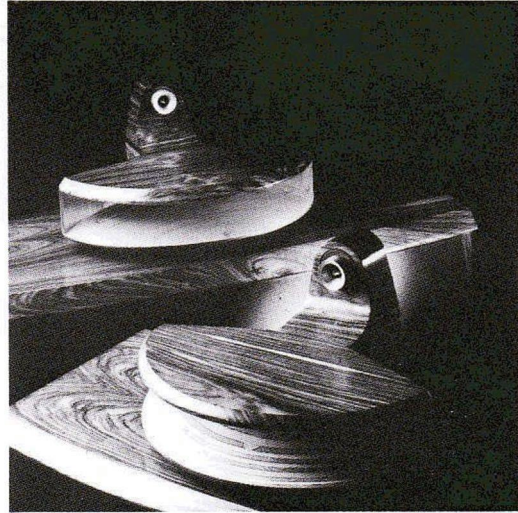
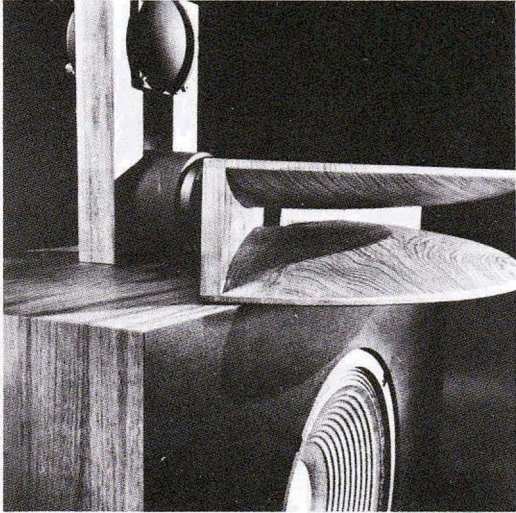


# LABORATORY SERIES PROFESSIONAL AUDIO TRANSDUCERS



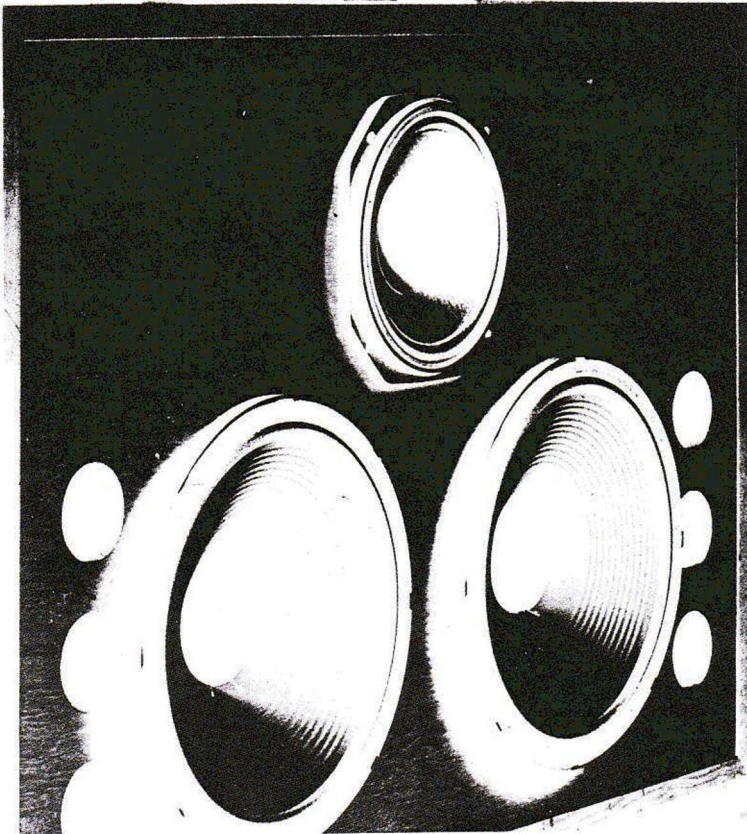
## "PRECISION SOUND ... BY DESIGN"

FOSTEX specializes in the manufacture of a comprehensive range of professional audio equipment including loudspeaker systems and components, microphones, amplifiers and stereo headphones. Our goal at all times is to provide products which will excellent performance and reliability.

This demands a fully integrated manufacturing system, from continuing reseach and development of basic materials through extensive, strict, quality assurance programs.

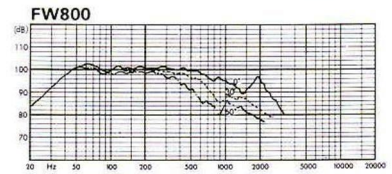
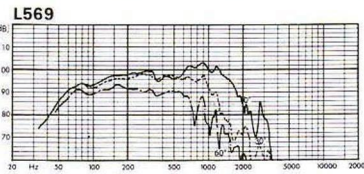
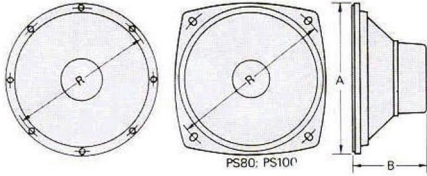
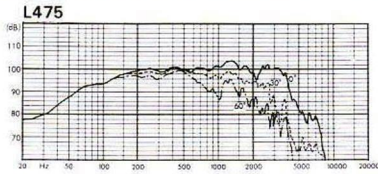
All major components and critical such as cone materials and diaphragm assemblies are manufactured using advanced technology, in our own factories. These methods, together with through enviromental testing and scientific measurements, assure the fulfillment of our goal. PRECISION SOUND ... BY DESIGN.

4-Way monitor system Photo by *Musen to Jikken Stereo Technic.*  
(FW400S × 2 + ML250 + D252 + H325 + T925)



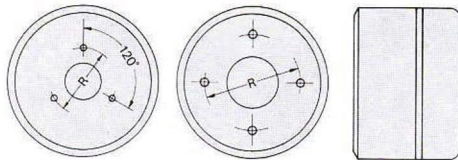
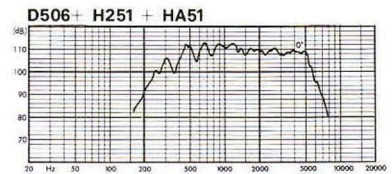
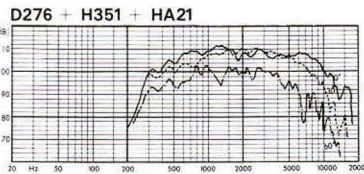
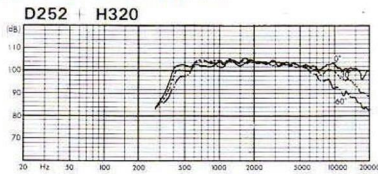
# DIMENSIONS OF TRANSDUCERS

## CONE TRANSDUCERS



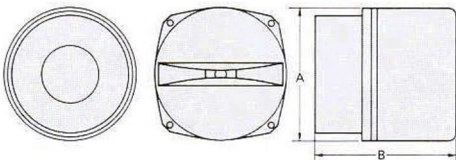
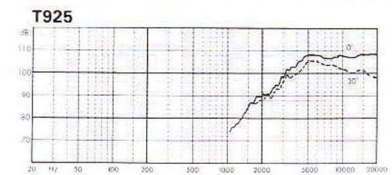
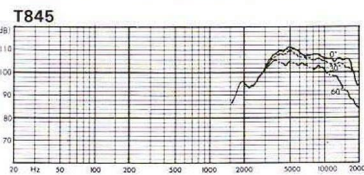
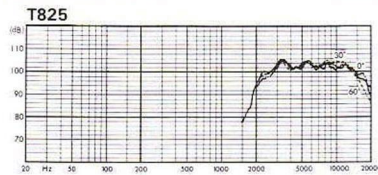
Dia.	A	R	Mounting hole dia.	Baffle dia.	Speaker component applied model
200	194	198	4- $\phi$ 6	$\phi$ 183	<b>F205</b>
250	262	265	4- $\phi$ 7	$\phi$ 240	<b>ML250</b>
300	$\phi$ 312	294	4- $\phi$ 7	$\phi$ 280	<b>L355 F356 FW303</b>
400	$\phi$ 395	375	8- $\phi$ 7	$\phi$ 357	<b>F476 L470 L475 L467 L469 L477 L479 FW400 FW400S</b>
460	$\phi$ 464	441	8- $\phi$ 7	$\phi$ 427	<b>L569</b>
800	$\phi$ 800	770	8- $\phi$ 7	$\phi$ 750	<b>FW800</b>

## COMPRESSION DRIVERS



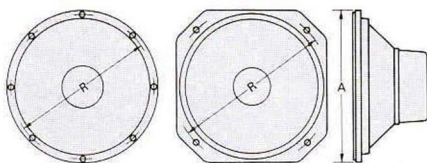
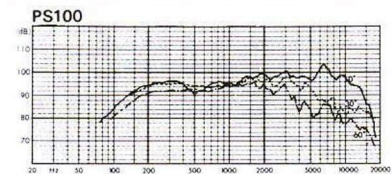
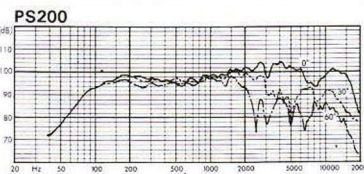
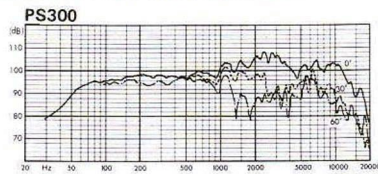
Throat dia.	R	Mounting hole dia.	Speaker component applied model
25.4 mm	$\phi$ 57.15	3-M6	<b>D272 D276 D262 D266 D252 D256 D232 D236</b>
50.4 mm	$\phi$ 101.6	4-M7	<b>D502 D506 D582 D586</b>

## SUPER TWEETERS



Model	A	B	Mounting hole dia.	Baffle dia.
<b>T825</b>	90.2	107.5	4- $\phi$ 5	$\phi$ 83
<b>T845</b>	92	102	4-M6	$\phi$ 81
<b>T725</b>	$\phi$ 82	135	-	$\phi$ 70
<b>T925</b>	$\phi$ 82	108	-	with <b>P92</b>
<b>T945</b>	$\phi$ 82	102	-	with <b>P94</b>
<b>FT600</b>	330W x 120H x 263D		8- $\phi$ 5.5	96 x 300
<b>P92</b>	Mounting flange for <b>T925</b>		4-M5	$\phi$ 78
<b>P94</b>	Mounting flange for <b>T945</b>		4-M5	$\phi$ 90

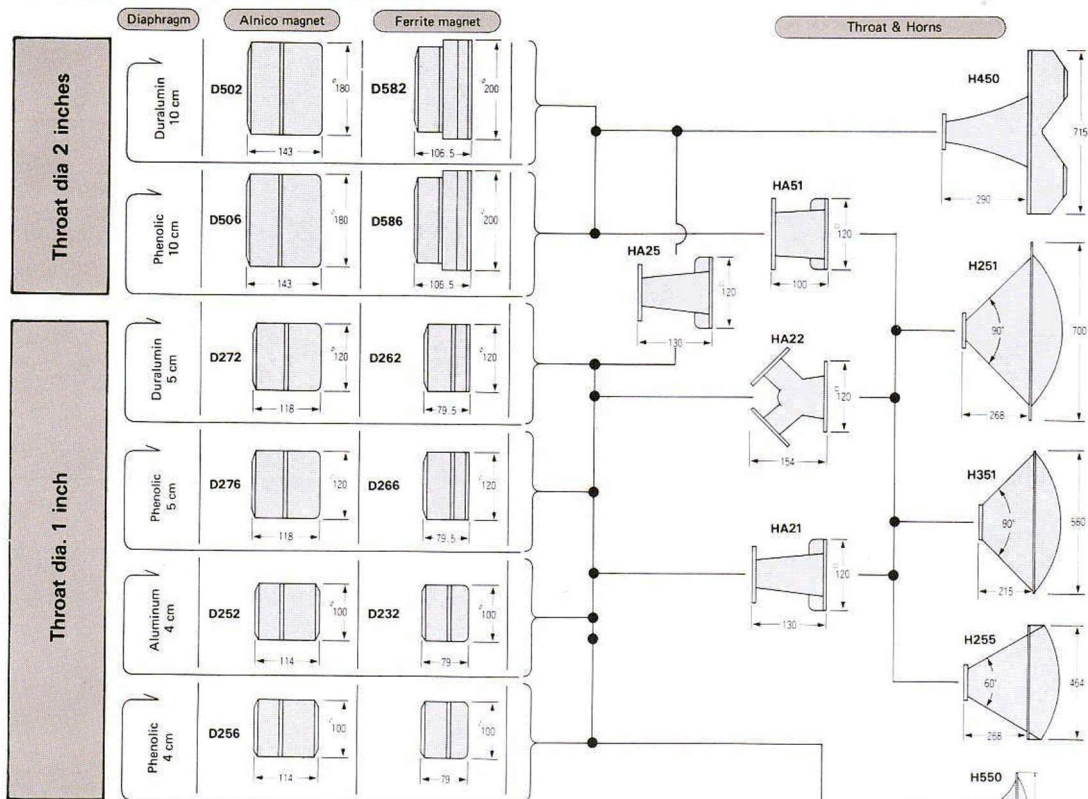
## FULL-RANGE TRANSDUCERS



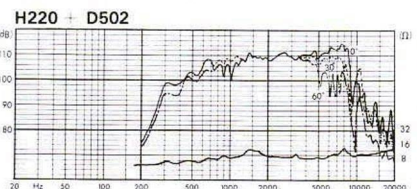
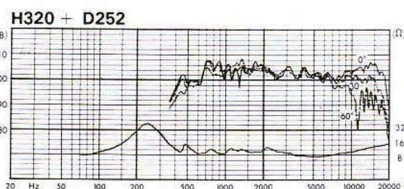
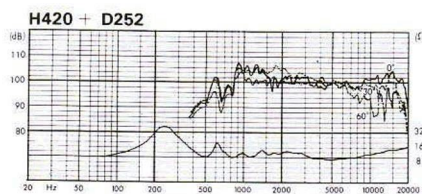
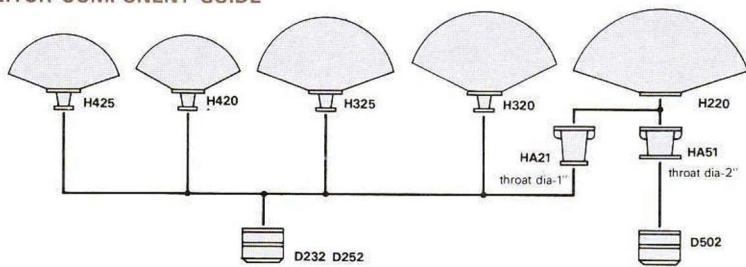
Model	A	B	C	R	Mounting hole dia.	Baffle dia.
<b>PS80</b>	83	44	60	86	4-4 x 6	$\phi$ 72
<b>PS100</b>	105	47.1	80	115	4-5 x 7	$\phi$ 93
<b>PS160</b>	$\phi$ 165	77.5	100	155	4- $\phi$ 5.2	$\phi$ 145
<b>PS200</b>	$\phi$ 209.6	94.5	120	193.8	4-5 x 8	$\phi$ 181
<b>PS300</b>	$\phi$ 312	135	156	292	8-6 x 8	$\phi$ 278

FOSTEX CORPORATION Tokyo, Japan  
Authorized Dealer

# SOUND REINFORCEMENT COMPONENT GUIDE



## STUDIO MONITOR COMPONENT GUIDE



## LOUDSPEAKER SYSTEM COMPONENT GUIDE

	Enclosures	Super bass/Low	Mid/Mid-high	Horn & lens	High	Remarks
Studio monitor systems	(Bass-reflex) 90~100ℓ BK100	L355 FW303	D252	H420	T825 T725	3-Way 2-Way
	150-250ℓ BK150-BK210	L475 FW400S	ML250 D252	H850 + K150 H420	T825 T925	BS1502 FOSTEX I
	700ℓ	FW400S × 2	L355 D502	H320 H220		4-Way 3-Way
	(Front load horn)	L569 × 2 L477 × 2	F356 × 4 D506 × 2	D276 × 2	H251 × 2 H351 × 2	T945 × 4
Sound reinforcement/ Discotheque systems	GK7020	L475	D252	H351		GS3001
	GK6011	F476	D276	H351	T925	GS3003
	GK300	F356			FT600	2-Way
	(Back load horn) GK5120	L479 × 2	D502	H450	T845 × 2	3-Way

( More information available in the catalogue of professional sound reinforcement )

# FULL-RANGE TRANSDUCERS FOR COLUMN LINE-ARRAY SYSTEMS

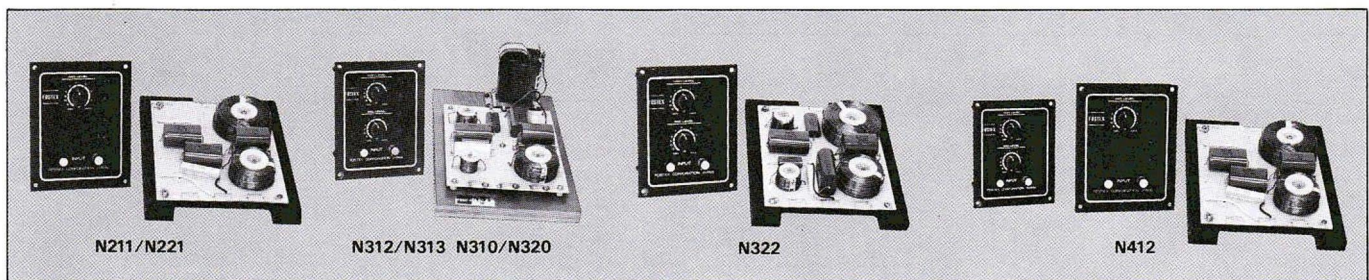


The **PS series** speaker is specially designed for the column speaker system with multiple use (2 ~ 9 pcs.) of **PS80/PS100** in stage sound reinforcement and stage monitor system. **PS160/PS200/PS300** are excellent applications for column line-array and the background music speaker system on the wall. Extended frequency response and vocal articulation, they are suitable for use in public address, commercial, educational and industrial applications, these heavy-duty systems provide complete reliability and are available in several configuration to best suit each purpose.

Model		PS80	*PS100**	PS160**	PS200**	PS300
Diameter	[cm]	8	10	16	20	30
Impedance	[ohms]	8	8	8	8	8
Resonance frequency	[Hz]	250	200	150	100	50
Frequency range	[Hz]	f <sub>0</sub> -20 k	f <sub>0</sub> -16 k	f <sub>0</sub> -20 k	f <sub>0</sub> -18 k	f <sub>0</sub> -18 k
Efficiency	[dB/W(1m)]	90	92	94	96	98
Power handling	[W(Mus.)]	8	25	50	65	100
m <sub>0</sub>	[g]	0.88	1.66	5.5	11	28
Effective Q <sub>0</sub>		1.0	0.78	1.1	0.9	1.0
Magnet weight	[g]	140	193	398	830	1060
Total weight	[kg]	0.36	0.63	1.3	2.4	4.0

\* Edgewound voice coil on mica bobbin.

\*\* Voice coil is allminum.



## DIVIDING NETWORKS

In order to form an excellent speaker system, it is absolutely necessary to use high performance dividing network parts, such as, for example, a large-sized inductor incorporating a cut core of low capacitor that permits minimized loss or leakage, and an attenuator **R80** of high power input resistance, capable of controlling inputs. The **R810** is an attenuator kit of high power input, which incorporates a special transformer to permit attenuation per dB step down to -20 dB.

**N412** is designed with 2 woofers in 8 ohm-parallel.

Model	Type	Imp.	Crossover frequency	Power handling	Attenuator
<b>N211</b>	2 way	8 ohms	800 Hz	150 W(Mus.)	Variable (R80)
<b>N221</b>	2 way	8 ohms	1,200 Hz	150 W(Mus.)	Variable (R80)
<b>N231</b>	2 way	8 ohms	3,000 Hz	150 W(Mus.)	Variable (R80)
<b>N312</b>	3 way	8 ohms	1,200/7 kHz	150 W(Mus.)	Variable (R80)
<b>N313</b>	3 way	8 ohms	800/7 kHz	150 W(Mus.)	Variable (R80)
<b>N322</b>	3 way	8 ohms	600/7 kHz	150 W(Mus.)	Variable (R80)
<b>N310</b>	3 way	8 ohms	750/7 kHz	150 W(Mus.)	1 dB step 0--20 dB (R810)
<b>N320</b>	3 way	8 ohms	600/7 kHz	150 W(Mus.)	1 dB step 0--20 dB (R810)
<b>N412</b>	4 way	8 ohms	250/800/7 kHz	150 W(Mus.)	Variable (R80)

# CONE TRANSDUCERS



FOSTEX **Laboratory series** loudspeakers are specially designed for use in sound reinforcement, discotheques and studio monitor applications.

All units feature :

- 1) **Low mass, rigid, cones**
- 2) **High efficiency magnet circuits**
- 3) **Rugged durable construction**
- 4) **High power handling**

The "**L**" and "**F**" series have edgewound aluminum or copper voice coils on epoxy-mica bobbing for increased durability and power handling.

The "**FW**" series features coated cones and extra-long voice coils: two layers of round copper wire result in the optimum mass and density for the smooth reproduction of low frequencies.



## SOUND REINFORCEMENT, DISCOTHEQUE, STUDIO APPLICATIONS

Model	Dia.	Imp.	Resonance frequency	Frequency range	Efficiency	Power handling	Crossover frequency	Voice coil Dia./material	Magnet weight	Net weight
<b>L467</b>	40 cm	8/16 ohms	40 Hz	f <sub>0</sub> -3.5 kHz	99 dB	300 W(Mus.)	2.0 k or under	*10 cm/alumi.	1,850 g	8.6 kg
<b>L469</b>	40 cm	8/16 ohms	30 Hz	f <sub>0</sub> -2.0 kHz	96 dB	400 W(Mus.)	1.5 k or under	*10 cm/copper	1,850 g	8.6 kg
<b>L477</b>	40 cm	8/16 ohms	40 Hz	f <sub>0</sub> -3.5 kHz	100 dB	300 W(Mus.)	2.0 k or under	*10 cm/alumi.	1,510 g	8.6 kg
<b>L479</b>	40 cm	8/16 ohms	30 Hz	f <sub>0</sub> -2.0 kHz	98 dB	400 W(Mus.)	1.5 k or under	*10 cm/copper	1,510 g	8.6 kg
<b>L569</b>	46 cm	8/16 ohms	30 Hz	f <sub>0</sub> -2.0 kHz	99 dB	500 W(Mus.)	1.5 k or under	*10 cm/copper	2,000 g	12.2 kg
<b>F356</b>	30 cm	8 ohms	50 Hz	f <sub>0</sub> -7.0 kHz	99 dB	100 W(Mus.)	—	8 cm/alumi.	1,100 g	5.7 kg
<b>F476</b>	40 cm	8 ohms	50 Hz	f <sub>0</sub> -6.0 kHz	100 dB	150 W(Mus.)	—	10 cm/alumi.	1,510 g	8.6 kg
<b>FW800</b>	80 cm	8 ohms	14 Hz	f <sub>0</sub> -800 Hz	100 dB	300 W(Mus.)	350 Hz or under	*10 cm/copper	2,000 g	28.0 kg

\* Edgewound type

## STUDIO MONITOR APPLICATIONS ONLY

Model	Dia.	Imp.	Resonance frequency	Frequency range	Efficiency	Power handling	Crossover frequency	Voice coil Dia./material	Magnet weight	Net weight
<b>L355</b>	30 cm	8 ohms	40 Hz	f <sub>0</sub> -4.0 kHz	98 dB	100 W(Mus.)	1.5 k or under	* 8 cm/alumi.	1,100 g	5.7 kg
<b>L470</b>	40 cm	8 ohms	25 Hz	f <sub>0</sub> -3.5 kHz	99 dB	150 W(Mus.)	2.0 k or under	*10 cm/alumi.	1,850 g	8.6 kg
<b>L475</b>	40 cm	8 ohms	25 Hz	f <sub>0</sub> -3.5 kHz	100 dB	150 W(Mus.)	2.0 k or under	*10 cm/alumi.	1,510 g	8.6 kg
<b>F205</b>	20 cm	8 ohms	38 Hz	f <sub>0</sub> -20 kHz	93 dB	45 W(Mus.)	—	* 5 cm/alumi.	730 g	4.1 kg
<b>FW303</b>	30 cm	8 ohms	21 Hz	f <sub>0</sub> -4.0 kHz	92 dB	100 W(Mus.)	2.5 k or under	8 cm/copper	1,820 g	6.4 kg
<b>FW400</b>	40 cm	8 ohms	17 Hz	f <sub>0</sub> -2.5 kHz	95 dB	150 W(Mus.)	1.5 k or under	10 cm/copper	1,850 g	8.6 kg
<b>FW400S</b>	40 cm	8 ohms	17 Hz	f <sub>0</sub> -2.5 kHz	96 dB	150 W(Mus.)	1.5 k or under	10 cm/copper	1,510 g	8.6 kg
<b>ML250</b>	25 cm	8 ohms	30 Hz	f <sub>0</sub> -3.0 kHz	97 dB	100 W(Mus.)	200 Hz or over 1.5 k or under	*6.5 cm/copper	1,420 g	4.7 kg

\* Edgewound type

## Alnico-Ferrite Selection Guide

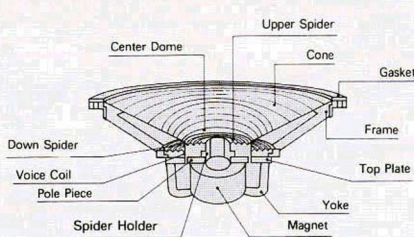
Dia./Power	200 mm	250 mm	300 mm	400 mm/150 W	400 mm/300 W	400 mm/400 W	460 mm/500 W	800 mm
ALNICO	<b>F205</b>	—	<b>L355/F356</b>	<b>L475/F476/FW400s</b>	<b>L477</b>	<b>L479</b>	—	—
FERRITE	—	<b>ML250</b>	<b>FW303</b>	<b>L470/FW400</b>	<b>L467</b>	<b>L469</b>	<b>L569</b>	<b>FW800</b>

## DUAL SPIDER CONSTRUCTION (L469/L479/L569/FW800)

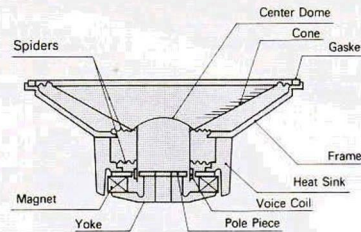
These models are intended for demanding high power applications.

Specially stiffened cones and heavy voice coil assemblies increase power handling at extreme low frequencies.

Dual spiders maintain long term stability and linearity while preventing catastrophic failure. These units are ideally suited for super bass use in sound reinforcement and discotheques.



Applicated Model-L469, L479



Applicated Model-L569, FW800

## COMPRESSION DRIVERS

FOSTEX compression drivers are available in three voice coil diameters, two throat sizes, and offer aluminum, duralumin or phenolic diaphragms and alnico or ferrite magnet structures.

The "1 inch" throat units feature 4 cm and 5 cm voice coils. While the "2 inch" throat units have a 10 cm coil diameter. Diaphragms are field replaceable with only a screw driver.

\* The FOSTEX sensitivity is measured with **H351 + HA21** for 1 inch throat units and **H251 + HA51** for 2 inches throat units at 1 W/1 M.



### SOUND REINFORCEMENT, DISCOTHEQUE, STUDIO APPLICATIONS

Model	Imp.	Frequency range	Efficiency	Power handling	Crossover frequency	Dia. of throat	Voice coil dia.	Diaphragm material	Magnet weight	Net weight
<b>D232</b>	8 ohms	500-20 kHz	104 dB	50 W(Mus.)	600 Hz or over	25.4 mm	4 cm	aluminum	334 g	1.4 kg
<b>D256</b>	8/16 ohms	500-13 kHz	104 dB	50 W(Mus.)	500 Hz or over	25.4 mm	4 cm	phenolic	650 g	3.3 kg
<b>D262</b>	8/16 ohms	800-15 kHz	104 dB	60 W(Mus.)	800 Hz or over	25.4 mm	5 cm	duralumin	830 g	2.3 kg
<b>D266</b>	8/16 ohms	500-12 kHz	105 dB	60 W(Mus.)	500 Hz or over	25.4 mm	5 cm	phenolic	830 g	2.3 kg
<b>D276</b>	8/16 ohms	500-12 kHz	107 dB	60 W(Mus.)	500 Hz or over	25.4 mm	5 cm	phenolic	1,100 g	4.4 kg
<b>D502</b>	8/16 ohms	500-10 kHz	108 dB	100 W(Mus.)	500 Hz or over	50.0 mm	10 cm	duralumin	3,100 g	13.0 kg
<b>D506</b>	8/16 ohms	300- 6 kHz	108 dB	120 W(Mus.)	300 Hz or over	50.0 mm	10 cm	phenolic	3,100 g	13.0 kg
<b>D582</b>	16 ohms	500-10 kHz	106 dB	100 W(Mus.)	500 Hz or over	50.0 mm	10 cm	duralumin	3,700 g	9.2 kg
<b>D586</b>	8/16 ohms	300- 6 kHz	106 dB	120 W(Mus.)	300 Hz or over	50.0 mm	10 cm	phenolic	3,700 g	9.2 kg

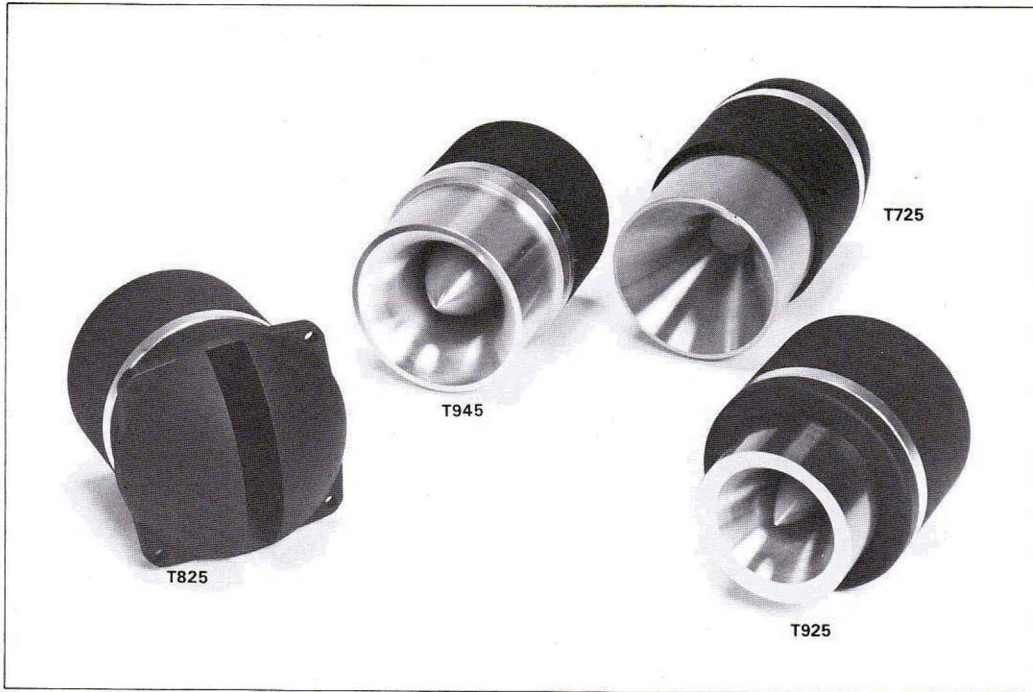
### STUDIO MONITOR APPLICATIONS ONLY

Model	Imp.	Frequency range	Efficiency	Power handling	Crossover frequency	Dia. of throat	Voice coil dia.	Diaphragm material	Magnet weight	Net weight
<b>D252</b>	8 ohms	500-20 kHz	104 dB	50 W(Mus.)	600 Hz or over	25.4 mm	4 cm	aluminum	650 g	3.3 kg
<b>D272</b>	8/16 ohms	800-15 kHz	106 dB	60 W(Mus.)	800 Hz or over	25.4 mm	5 cm	duralumin	1,100 g	4.4 kg

### Compression driver quick selection guide

Dia. of throat		50 mm		25.4 mm			
		100 mm		50 mm		40 mm	
Magnet		ALNICO	FERRITE	ALNICO	FERRITE	ALNICO	FERRITE
material	Metallic	<b>D502</b>	<b>D582</b>	<b>D272</b>	<b>D262</b>	<b>D252</b>	<b>D232</b>
	Phenolic	<b>D506</b>	<b>D586</b>	<b>D276</b>	<b>D266</b>	<b>D256</b>	—

# SUPER TWEETERS



FOSTEX super tweeters are available in two diaphragm sizes: 2 cm and 4 cm. The **T825/T925** feature extended smooth high frequency response and use the same 2 cm aluminum diaphragm and voice coil assembly. The **T825** uses a diffraction horn and offers an unprecedented wide dispersion, even at very high frequencies. The **T925** operates as a ring radiator with controlled conical dispersion. Similar in dispersion characteristics, the **T845/T945** respectively, use the larger 4 cm aluminum diaphragm for high power applications. The **T725** is a horn loaded tweeter which offers extremely wide bandwidth and is recommended for use in critical applications, such as studio monitors.

## SOUND REINFORCEMENT, DISCOTHEQUE, STUDIO APPLICATIONS

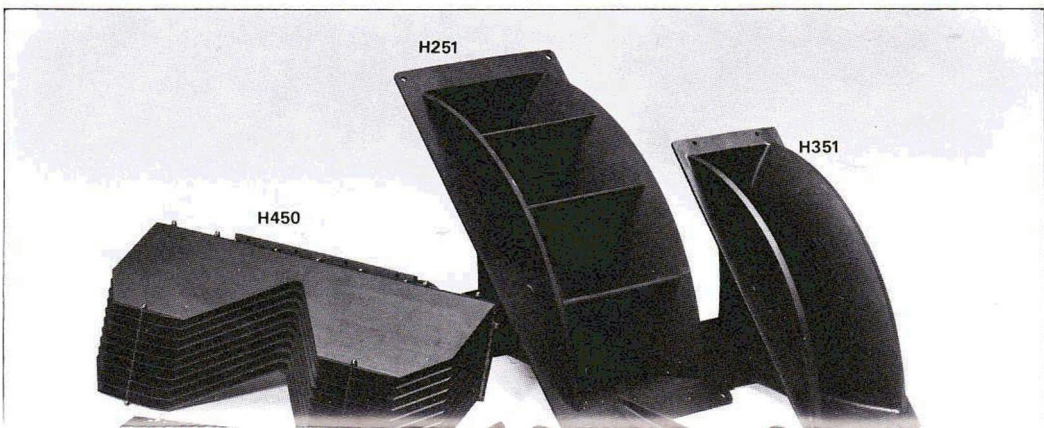
Model	Dia.	Imp.	Resonance frequency	Frequency range	Efficiency	Power handling	Crossover frequency	Voice coil Dia./material	Magnet weight	Net weight
<b>T925</b>	—	8 ohms	—	5.0 k-40 kHz	108 dB	50 W(Mus.)	7.0 k or over	2 cm/ alumi.	240 g(ALNICO)	1.8 kg
<b>T845</b>	—	8 ohms	—	2.5 k-18 kHz	106 dB	50 W(Mus.)	3.0 k or over	4 cm/ alumi.	240 g(ALNICO)	2.0 kg
<b>T945</b>	—	8/16 ohms	—	2.0 k-20 kHz	110 dB	50 W(Mus.)	3.0 k or over	4 cm/ alumi.	240 g(ALNICO)	2.0 kg
<b>FT600</b>	—	8 ohms	—	0.5 k-15 kHz	104 dB	30 W(Mus.)	1.2 k or over	2.5 cm/ copper	390 g(FERRITE)	2.5 kg

## STUDIO MONITOR APPLICATIONS ONLY

Model	Dia.	Imp.	Resonance frequency	Frequency range	Efficiency	Power handling	Crossover frequency	Voice coil Dia./material	Magnet weight	Net weight
<b>T725</b>	—	8 ohms	—	2 k-20 kHz	102 dB	50 W(Mus.)	2.5 k or over	2 cm/alumi.	350 g(ALNICO)	2.1 kg
<b>T825</b>	—	8 ohms	—	2 k-20 kHz	102 dB	50 W(Mus.)	4.0 k or over	2 cm/alumi.	240 g(ALNICO)	2.1 kg

Mounting flange: P92 is for T925, P94 is for T945.

# CAST HORNS AND ACCESSORIES

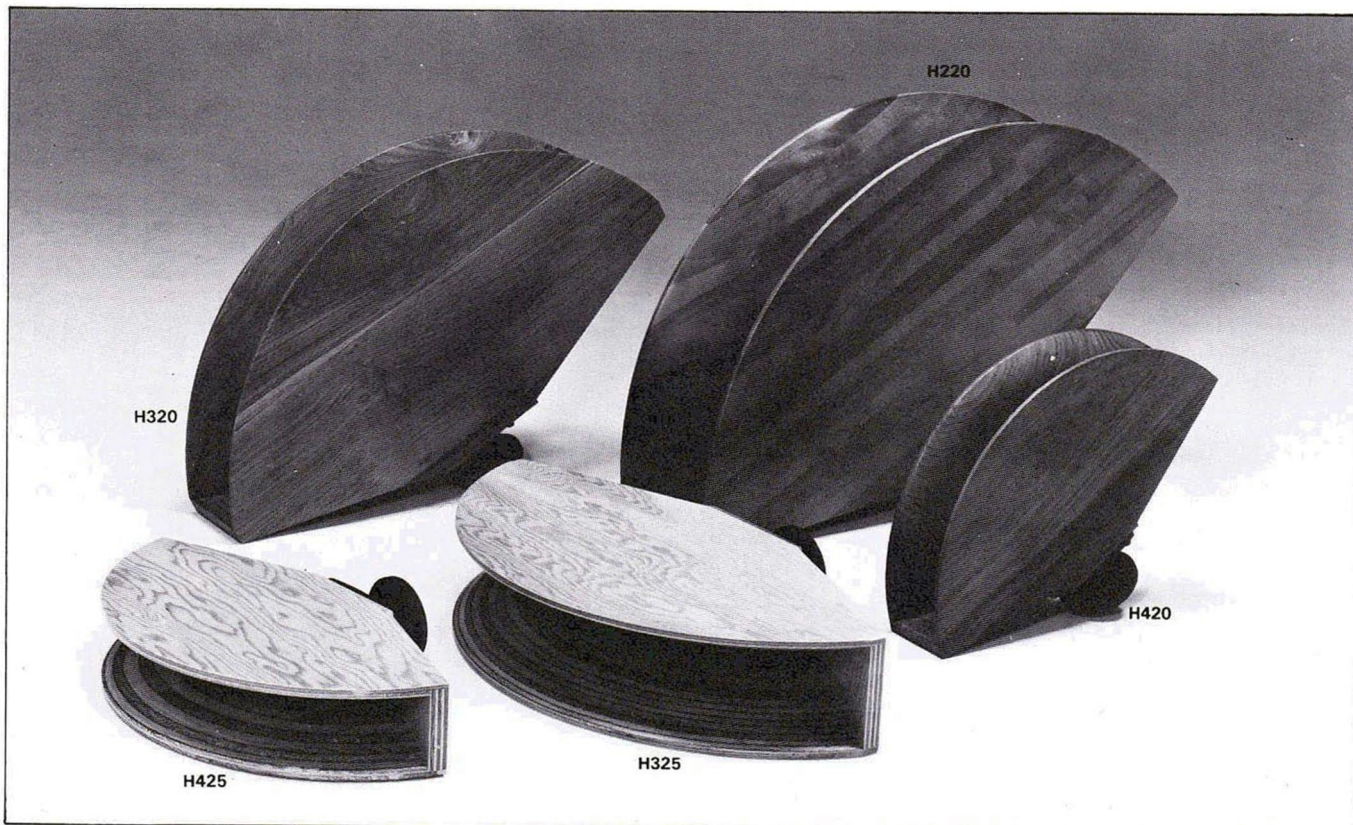




The **H251** and **H550** are designed as sectoral horn and the **H351** & **H255** are designed as radial horn for various sound reinforcement and discotheque applications because of its wide dispersion and longdistance performances. The **H450** is designed as combination of exponential horn and acoustic lens for producing exceptionally wide dispersion in same applications of above. The material of acoustic lens is made by aluminum for minimising reflection sound. The combination of compression drivers and casting horn including accessories such as horn adaptors & lens are clearly shown at sound reinforcement guide. **H251 H255, H351** and **H450** are mountable with either 1" or 2" compression drivers by using proper throat adaptors.

Model	Material	Cut-off frequency	Dia. of throat	Dispersion (horizontal)	Net weight	Size (mm)
<b>H255</b>	light alloy	250 Hz	25.4 mm	60°	10.0 kg	464W×306H×400D
<b>H251</b>	light alloy	250 Hz	25.4 mm	90°	11.4 kg	700W×320H×400D
<b>H351</b>	light alloy	350 Hz	25.4 mm	90°	5.8 kg	560W×200H×324D
<b>H450</b>	light alloy	450 Hz	50.0 mm	120°	10.0 kg	715W×288H×458D
<b>H550</b>	light alloy	600 Hz	25.4 mm	120°	1.6 kg	330W×100H×230D
<b>H850</b>	light alloy	850 Hz	25.4 mm	—	1.5 kg	∅180×320D
<b>H555</b>	light alloy	500 Hz	25.4 mm	60°	2.2 kg	220W×220H×182D
<b>HA21</b>	light alloy	—	25.4 mm	—	1.0 kg	—
<b>HA22</b>	light alloy	—	25.4 mm (Dual)	—	1.3 kg	—
<b>HA25</b>	light alloy	—	50/25.4 mm	—	0.7 kg	—
<b>HA51</b>	light alloy	—	50.0 mm	—	1.1 kg	—
<b>K150</b>	Iron	—	—	90°	—	254W×182H×60D

## WOODEN RADIAL HORNS



FOSTEX wooden horns feature a non-compromise radial horns, precision milled solid birch and pine to rigid specifications. The high density of the woods eliminate resonances from the pass-band. The natural curved horn is produced extremely wide dispersion and smooth sound performance together with selected compression drivers for studio monitor system. 1 inch throat adaptor is pre-mounted in **H320 H420** (birch) and **H325 H425** (pine) except **H220** which can be mountable either 1 inch or 2 inches throat adaptor as option.

Model	Material	Cut-off frequency	Dia. of throat	Dispersion (horizontal)	Net weight	Size(mm)
<b>H220</b>	laminata	220 Hz	*50/25.4 mm	140°	14.4 kg	757W×180H×391 D
<b>H320</b>	birch	320 Hz	25.4 mm	140°	8.1 kg	643W×115H×403D
<b>H325</b>	pine	340 Hz	25.4 mm	140°	6.0 kg	600W×120H×377.5D
<b>H420</b>	birch	420 Hz	25.4 mm	140°	3.2 kg	444W×90H×292.5D
<b>H425</b>	pine	460 Hz	25.4 mm	140°	3.0 kg	484W×90H×311D

\*Throat adaptor is separated.