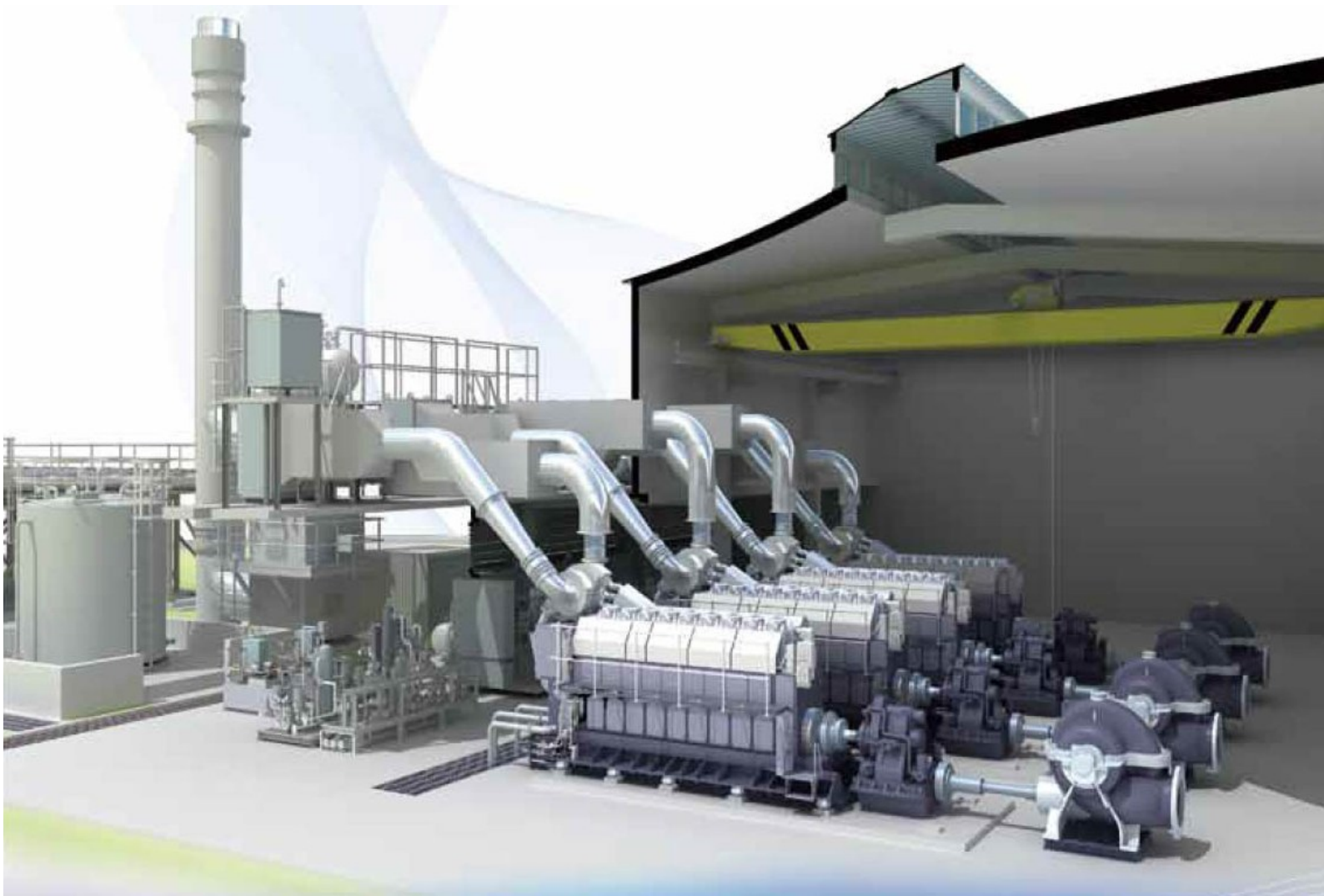


HiMSEN Engine

Hi-touch Marine & Stationary Engine

for **Pump Station**



Earth Friendly Engine

Design Philosophy

Hyundai's HiMSEN Family has simple and smart design suitable for pumping applications with high reliability and performance. HHI Engines can run on liquid fuel such as Heavy Fuel Oil (HFO) and Diesel Oil (DO) or natural gas. The key features are:

Economical and Ecological Engine

It is designed with low fuel consumption, NOx emission, and Smoke, etc. which is based on the following specific designs:

- Optimized Supercharging with Miller Cycle
- High Fuel Injection Pressure

Reliable and Practical Engine

It is designed with simple, smart and robust structure.

- Number of engine components are minimized with Pipe-Free design.
- Most of the components are directly accessible for easier maintenance.
- Feed System is fully modularized with direct access.



Main Features

Performance characteristics

- Higher output in the similar range engines
- Low fuel consumption
- Quick acceleration & load response

Maintenance

- Easier maintenance through modularized design
- Minimal number of components

Earth friendly engine

- Low NOx emissions
- Complies with IMO NOx Tier II
- Low Vibration & Noise



Liquid Fuel Engine Main Data

H21/32 Bore 210 mm Stroke 320 mm

Technical Data		Speed (rpm)	5H21/32	6H21/32	7H21/32	8H21/32	9H21/32
Engine Power (kW)		900	960	1,200	1,400	1,600	1,800
		1000	-	1,200	1,400	1,600	1,800
Heat Rate (kJ/kWh _m)		900			7,814		
		1000			7,899		
Dimensions (mm)	Width		1,610	1,610	1,610	1,610	1,610
	Height		2,712	2,781	2,781	2,911	2,911
	Length	-	3,411	3,781	4,235	4,453	4,783
Weight (ton)			13.4	15.1	16.7	18.4	19.8

H25/33 Bore 250 mm Stroke 330 mm

Technical Data		Speed (rpm)	6H25/33	7H25/33	8H25/33	9H25/33
Engine Power (kW)		900	1,740	2,030	2,320	2,610
		1000	1,800	2,100	2,400	2,700
Heat Rate (kJ/kWh _m)		900/1000			7,729	
Dimensions (mm)	Width		1,660	1,660	1,660	1,660
	Height		2,961	3,241	3,371	3,371
	Length	-	4,414	4,794	5,311	5,691
Weight (ton)			20.2	22.5	24.1	26.2

H25/33V Bore 250 mm Stroke 330 mm

Technical Data		Speed (rpm)	12H25/33V	14H25/33V	16H25/33V	18H25/33V	20H25/33V
Engine Power (kW)		900/1000	3,840	4,480	5,120	5,760	6,400
Heat Rate (kJ/kWh _m)		900/1000			7,814		
Dimensions (mm)	Width		2,060	2,060	2,060	2,060	2,060
	Height		3,750	3,750	3,750	3,750	3,750
	Length	-	5,524	5,944	6,364	6,784	7,204
Weight (ton)			33.5	36.5	39.5	42.5	45.5

H32/40 Bore 320 mm Stroke 400 mm

Technical Data		Speed (rpm)	6H32/40	7H32/40	8H32/40	9H32/40
Engine Power (kW)		720/750	2,850	3,325	3,800	4,275
Heat Rate (kJ/kWh _m)		720			7,600	
		750			7,686	
Dimensions (mm)	Width		2,300	2,300	2,300	2,300
	Height		3,959	4,130	4,130	4,130
	Length	-	5,760	6,112	6,602	7,092
Weight (ton)			33.7	38.6	41.5	44.6

H32/40V Bore 320 mm Stroke 400 mm

Technical Data		Speed (rpm)	12H32/40V	14H32/40V	16H32/40V	18H32/40V	20H32/40V
Engine Power (kW)		720/750	5,700	6,650	7,600	8,550	9,500
Heat Rate (kJ/kWh _m)		720			7,643		
		750			7,729		
Dimensions (mm)	Width		2,650	2,650	2,650	2,650	2,650
	Height		4,723	4,723	4,723	4,794	4,794
	Length	-	6,624	7,295	7,914	8,585	9,344
Weight (ton)			56.0	63.3	69.1	76.3	84.0

Remarks

- 1) The MCR will be based on ISO condition.
- 2) Based on LCV 42,700 kJ/kg, HFO operation.
- 3) Warranted at 100% load.
- 4) Power adjusting upto -5% derating is generally accepted, other power adjusting must be consulted with engine builder.
- 5) All dimensions and weight are approximate value and subject to change without prior notice.

Natural Gas Engine Main Data

H35/40G Bore 350 mm Stroke 400 mm

Technical Data		Speed (rpm)	6H35/40G	7H35/40G	8H35/40G	9H35/40G
Engine Power (kW)		720/750	2,880	3,360	3,840	4,320
Heat Rate (kJ/kWh _m)		720/750	7,370			
Dimensions (mm)	Width	-	2,300	2,300	2,300	2,300
	Height	-	3,759	3,882	4,132	4,132
	Length	-	5,760	6,112	6,602	7,092
Weight (ton)		-	33.7	38.6	41.5	44.6

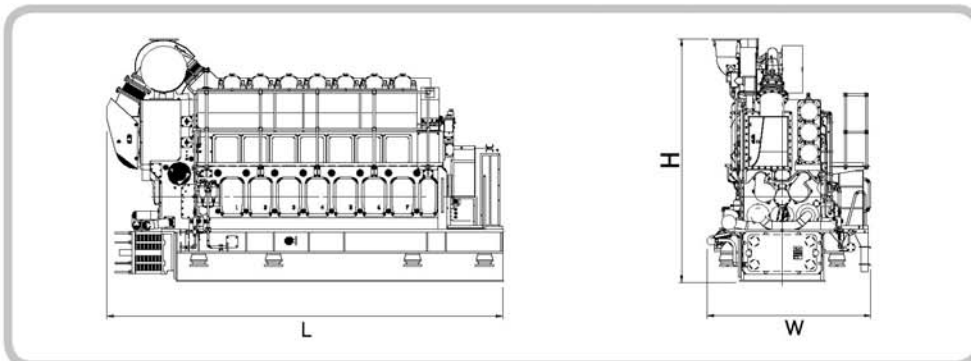
H35/40GV Bore 350 mm Stroke 400 mm

Technical Data		Speed (rpm)	12H35/40GV	14H35/40GV	16H35/40GV	18H35/40GV	20H35/40GV
Engine Power (kW)		720/750	5,760	6,720	7,680	8,640	9,600
Heat Rate (kJ/kWh _m)		720/750	7,370				
Dimensions (mm)	Width	-	2,650	2,650	2,650	2,650	2,650
	Height	-	4,723	4,723	4,723	4,794	4,794
	Length	-	6,624	7,295	7,914	8,585	9,344
Weight (ton)		-	56.0	63.3	69.1	76.3	84.0

Remarks

- 1) The MCR will be based on ISO condition.
- 2) Fuel gas based on LNG, LCV 49,138 kJ/kg, Methane No. 73.
- 3) Warranted at 100% load.
- 4) Power adjusting upto -5% derating is generally accepted, other power adjusting must be consulted with engine builder.
- 5) All dimensions and weight are approximate value and subject to change without prior notice.

■ L - Type



■ V - Type

