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HYUNDAI
TURBO AIR COMPRESSOR

HYUNDAI HEAVY INDUSTRIES
ENGINE & MACHINERY

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Anytime, Anywhere, Any matters
Easy and convenient access!
(Korean-speaking agent is available during Korean Business hours)

K05-130-03 DEC. 2014
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HYUNDAI HEAVY INDUSTRIES | ENGINE & MACHINERY

Brief history of HYUNDAI turbo compressor

Hyundai Heavy Industries Co., Ltd. (HHI) is well-known throughout the world for its shipbuilding and for manufacturing various kinds of machinery. HHI is made up of eight divisions: Shipbuilding, Offshore & Engineering, Industrial Plant & Engineering, Electro Electric Systems, Green Energy, Construction Equipment, R & D, and Engine & Machinery (HHI-EMD).

And also manufactures and produces Air Compressor by its own engineering and design developed with accumulated experiences and know-how through manufacturing and supplying hydraulic machinery since 1979.

HHI-EMD will serve customer and industry by supplying reliable, high quality, cost-effective, timely supported air compressors like all other products provided to customer satisfaction so far.

Since 1979 in industrial pump business

Continuous localization and supply of industrial pumps and marine equipment
by collaboration with world-class technology partners to customer satisfaction
- Thermal & nuclear power plant
- Desalination plant
- Ship owners & Ship builders
- Industrial plants (LNG terminal, Oil refineries)

Accumulated experiences in manufacturing and supplying
- Major pumps for power plants
- Turbo-chargers
- LNG carrier propulsion steam turbines
- Cargo oil pumps and driving turbines

Technical know-how acquired and affluent experiences enable HHI to develop Turbo Air Compressor to timely respond to the needs of customers

Global Leader
HYUNDAI
Turbo Compressor

Major features

- Easy access to all major components
- State-of-the-art backward lean type impellers.
- Low mechanical loss
- Wide operation range
- Compact & Simple design.
- User friendly operation & interface.
- Optimized ventilation system of sound enclosure (Option)

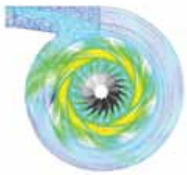
Sound enclosure for better operation environment

- Removable roof & side panel for easy access and maintenance.
- Superior acoustic performance with modern & practical design.
- Robust structure of base frame realizes stable operation and low vibration

ISO 9001:2008 certified quality management system

High performance & reliability, robust design

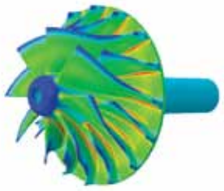
The state-of-the-art CFD analysis, rotor & gear dynamic analysis enable to assure reliable compressor operation with the lowest vibration level.



Velocity Distribution

Stream Line

Pressure Distribution



Structure Analysis

HTC configurations & technologies

1. Pinion shaft assembly

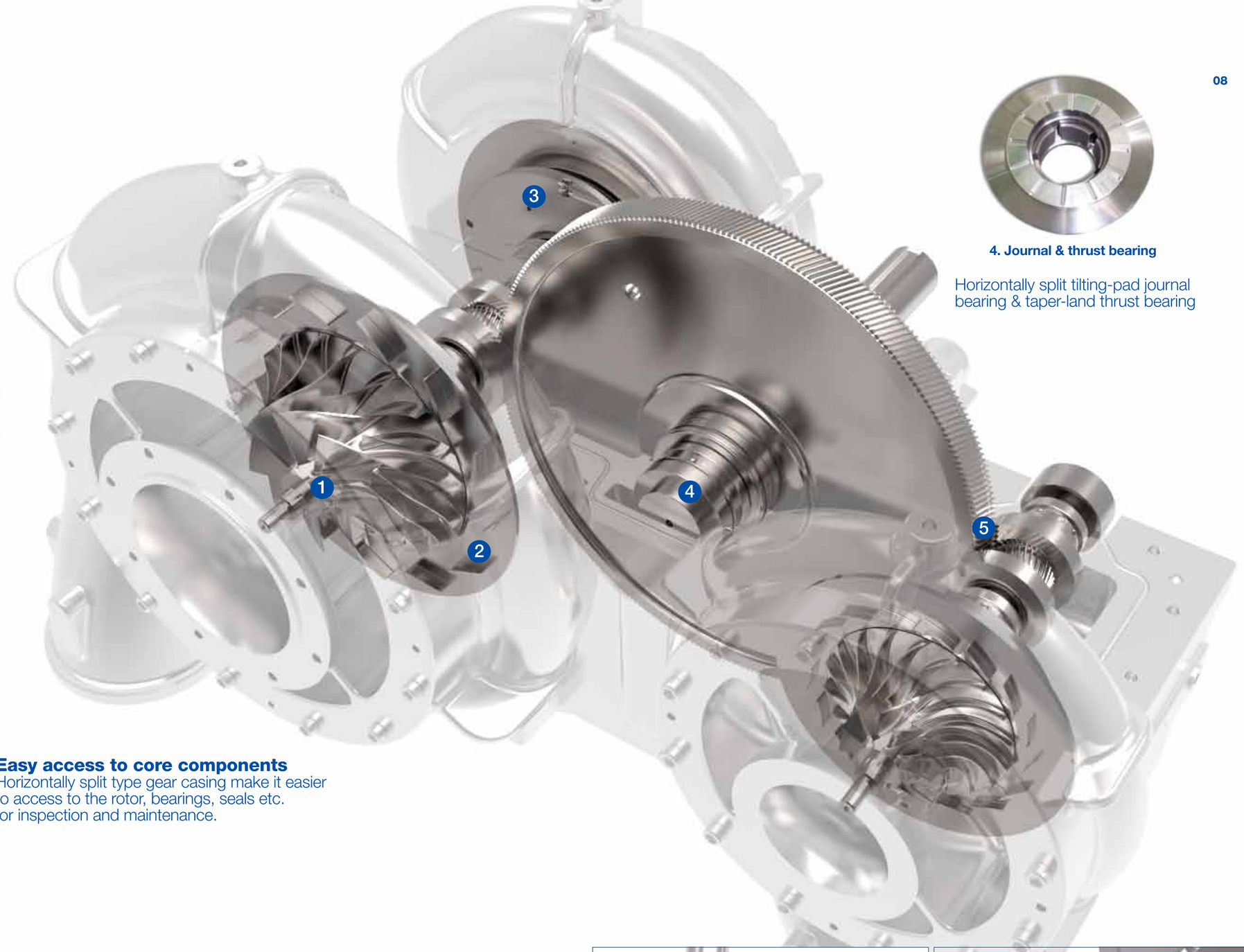
High efficient backward leaned impellers with precise rotor

2. Diffuser

Vaned diffuser for optimizing flowpath

3. Seals

Horizontally split air &
oil seal for easy maintenance



Easy access to core components
Horizontally split type gear casing make it easier
to access to the rotor, bearings, seals etc.
for inspection and maintenance.

4. Journal & thrust bearing

Horizontally split tilting-pad journal
bearing & taper-land thrust bearing

5. Gear

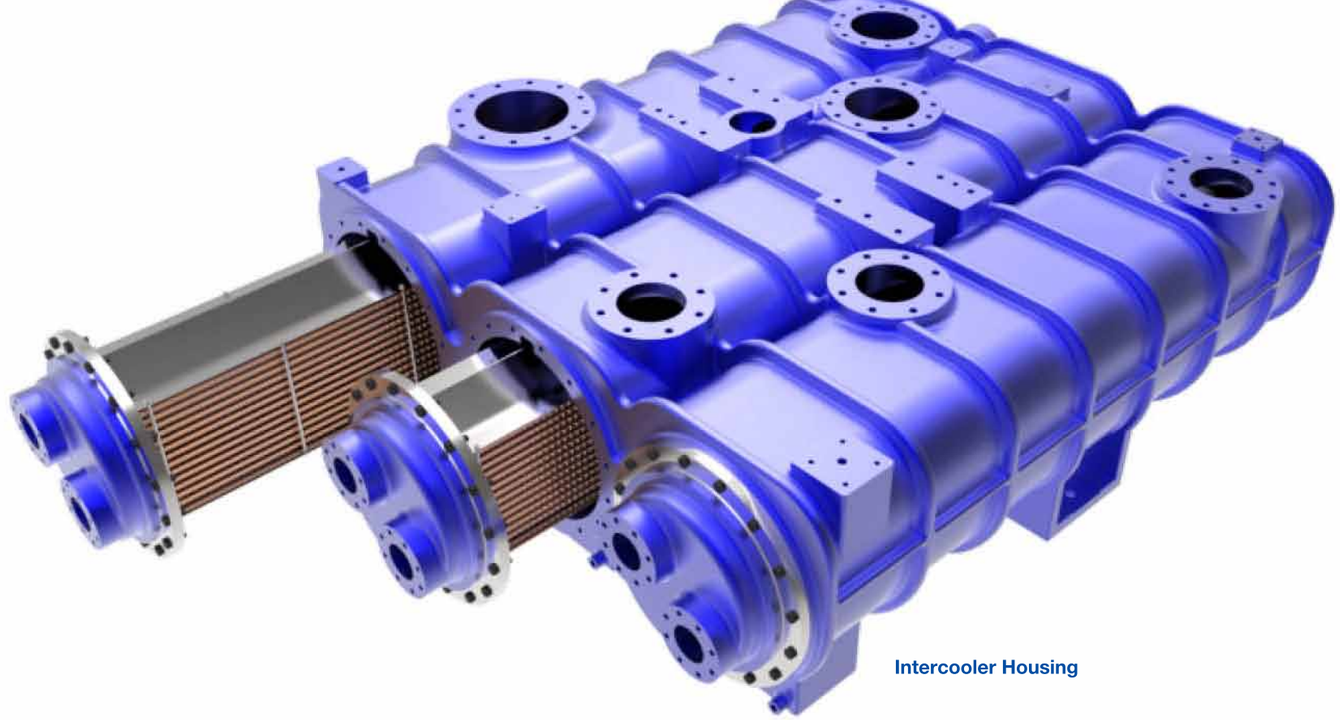
High quality increasing gear pairs
(Bull gear - AGMA 12 Class, JIS 1 Class)
(Pinion - AGMA 13 Class, JIS 0 Class)

Product features

Inlet guide vane

Controllable inlet guide vane

Saving up the power consumption of compressor at reduced air demand by efficient IGV control.



Intercooler Housing

The most efficient inter/aftercooler bundle & housing

- Optimized cooler sizing and flowpath design offer high heat transfer efficiency with minimum pressure drop
- Minimal downtime and high fouling resistance for inspection and easy cleaning/maintenance
- Well-designed cooler housing provides wide & optimized space for high efficient air flow and condensate separation

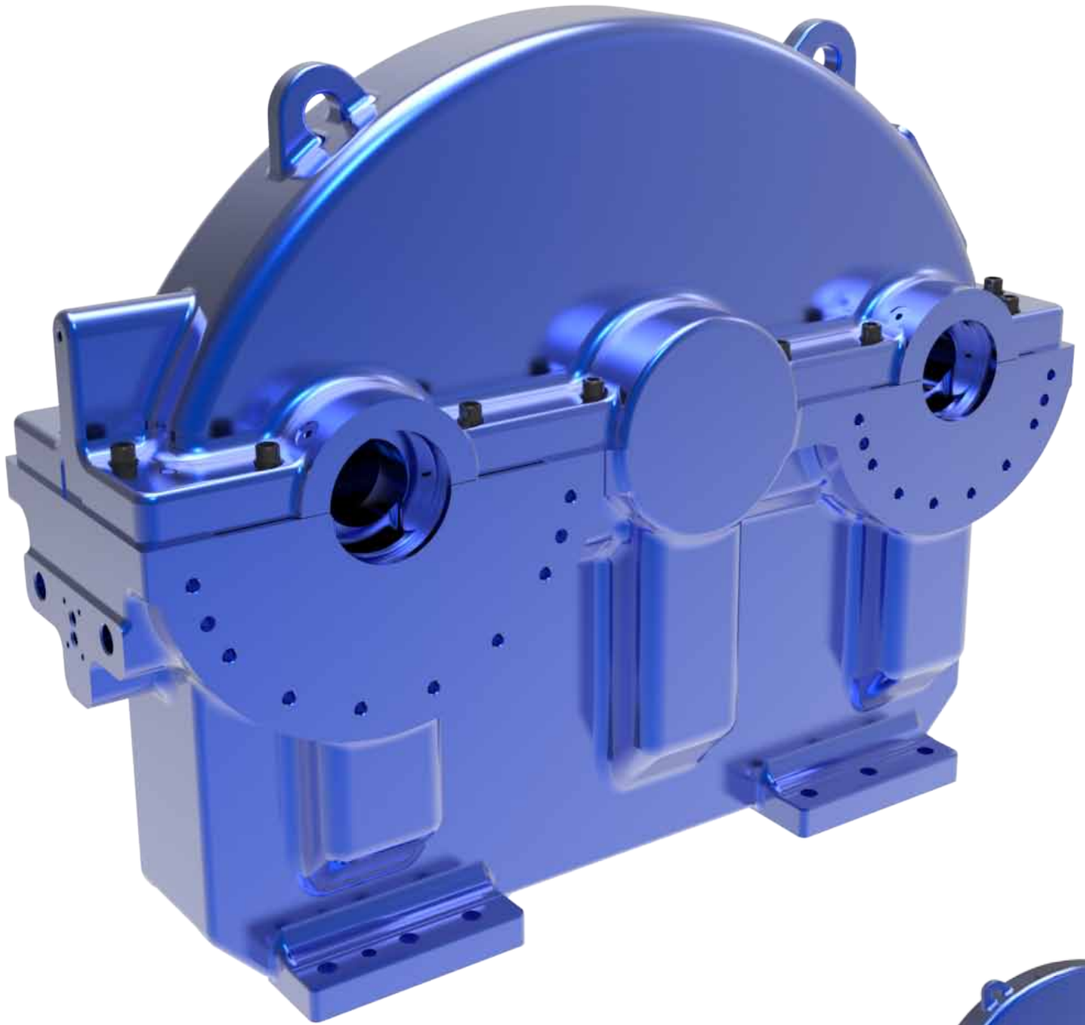
Impeller

Bull & pinion shaft assembly

Exclusive backward leaned impellers and robust & precise rotors

- The 5 axis machined backward leaned impellers are designed to provide exclusively high efficiency and wide range of turndown ratio.
- Impellers made of stainless steel & rotors with structurally sound design offer stable operation with low vibration and noise.
- Precise rotor balancing according to API standard.

Product features



Easy access to core components
Horizontally split type gear casing make it easier to access
to the rotor, bearings, seals etc. for inspection and maintenance.

100% Oil leak-free seals
- Horizontally split air & oil seal for easy maintenance
- Non-contact type seals minimize compressed air loss with long lifetime.

Superior horizontally split bearings
- Easy to access and easy maintenance
- Efficient combination of journal and thrust bearings minimize friction losses
  and extend lifetime

HTC smart & convenient control

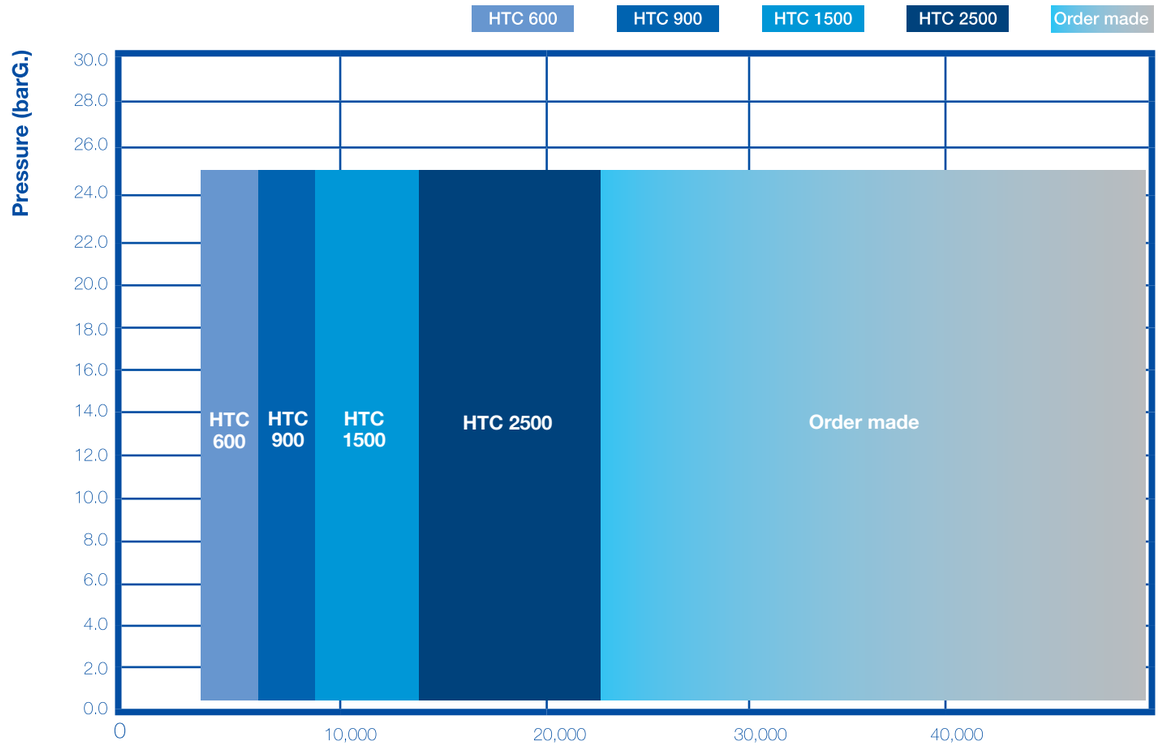
Smart control system

- The dedicated developed system for air compressor
- A large color touch screen provides comprehensive information and vital signs at a glance.
- Advanced control & monitoring system with simple UI.
- Easy operation history search & graphic view
- Auto saving database
- Excellent surge control system using IGV, BOV (Surge line limit control, PID + Open loop control)
- TCP/IP communication & Serial communication with upper system

Optimization

- Optimized surge control & pressure control
- Optimized turndown
- Comprehensive machine health and safety monitoring
- Event logging and graphic trending
- Easy searching of database
- Scheduled compressor data log generator

HTC series application range



Model	Nominal Capacity				Discharge Pressure				Motor Power				Dimension						Weight (without Motor)
	m³/hr		CFM		barG.		PsiG.		kW		HP		mm			inch			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H	L	W	H	kg
HTC600	3,000	5,500	1,766	3,237	3.5	25.0	7.3	362.6	269	3,090	361	4,143	4,300	2,200	2,200	169	87	87	6,700
HTC900	5,100	8,500	3,002	5,003									4,800	2,200	2,300	189	87	90	8,500
HTC1500	7,500	14,000	4,414	8,240									5,400	2,286	2,485	213	90	98	10,075
HTC2500	13,500	23,500	7,946	13,832									6,000	2,340	2,250	236	92	89	12,350