

کمپرسورهای گاز فرآیندی رفت و برگشتی

Process Gas Reciprocating Compressor

**HAVAYAR**  
INDUSTRIAL GROUP

# Reciprocating Compressors

Reciprocating compressors are the most widely used compressors in petrochemical complexes, refineries, natural gas and related processes. So Havayar has always strived to produce and supply the highest quality reciprocating compressors which require minimum maintenance over the long term. This way we are supporting our customers.

## API STANDARD 618

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All compressors have been design accordance to API standard 618, the latest edition, recommendation. They also comply with many guidelines and international construction codes and customer requirements in customers.

## Rigid Construction

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The compressor crankcase is of the rigid type construction, and spacer blocks and cylinders are strongly bolted each other and auxiliary pressure vessels and heat exchanger are designed and locked strong angel and supported.

## Minimized Vibration

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The arrangement of compressor cylinders arranged on opposite sides of the crankshaft provides for mutual balancing of the reciprocation inertia forces, to ensure minimized vibration generated by the reciprocating masses.



1. Rigid box design
2. Cast iron
3. Bottom side – oil tank
4. Firmly fixed by strong bolts
5. Sealed by gaskets
6. Crosshead guide
7. Main oil pump

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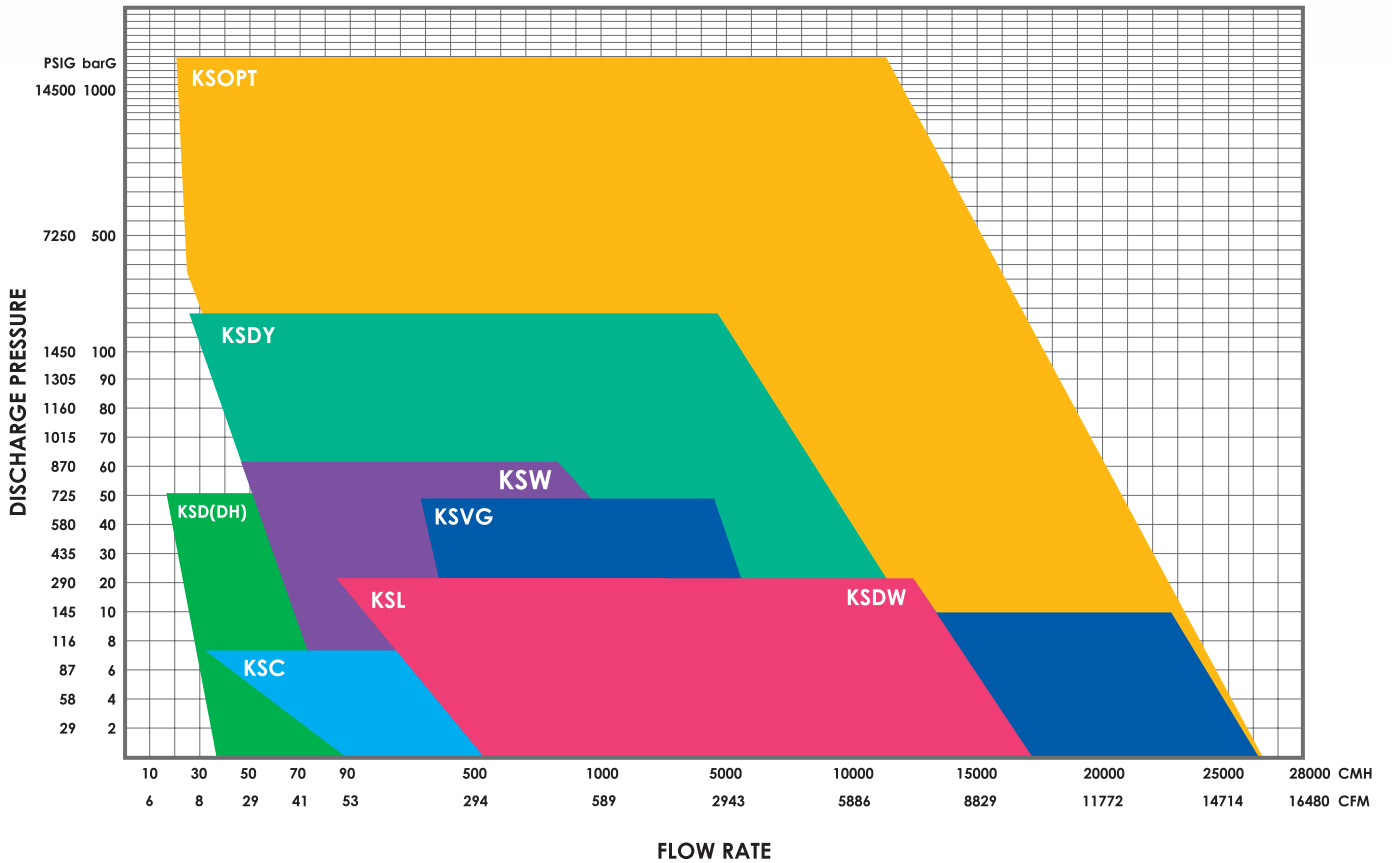
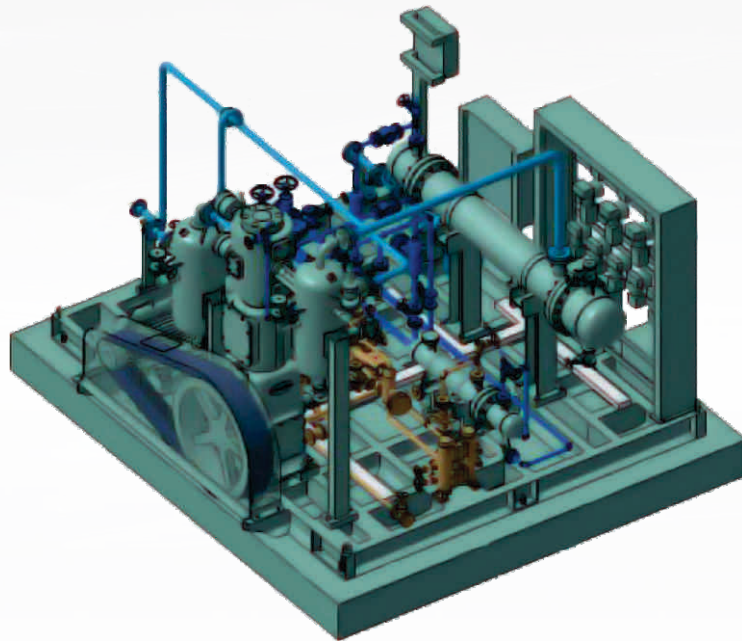
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## ■ 3D Modeling

Applying 3D modeling is for optimized package design following fault-preventing configuration, forecasting flow condition, and reviewing piping interference, etc., as per client's requirement.

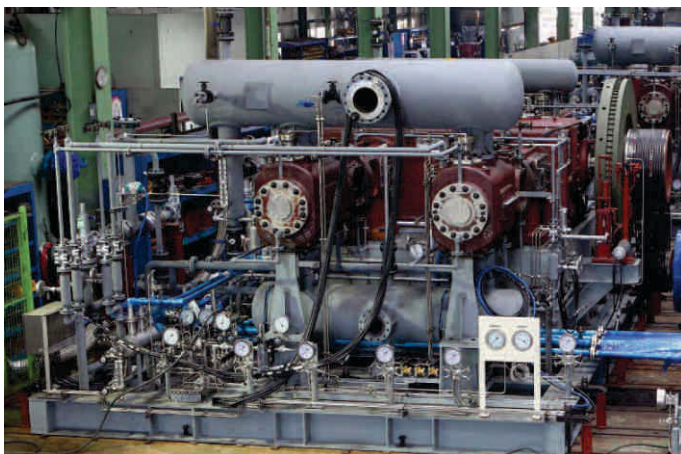
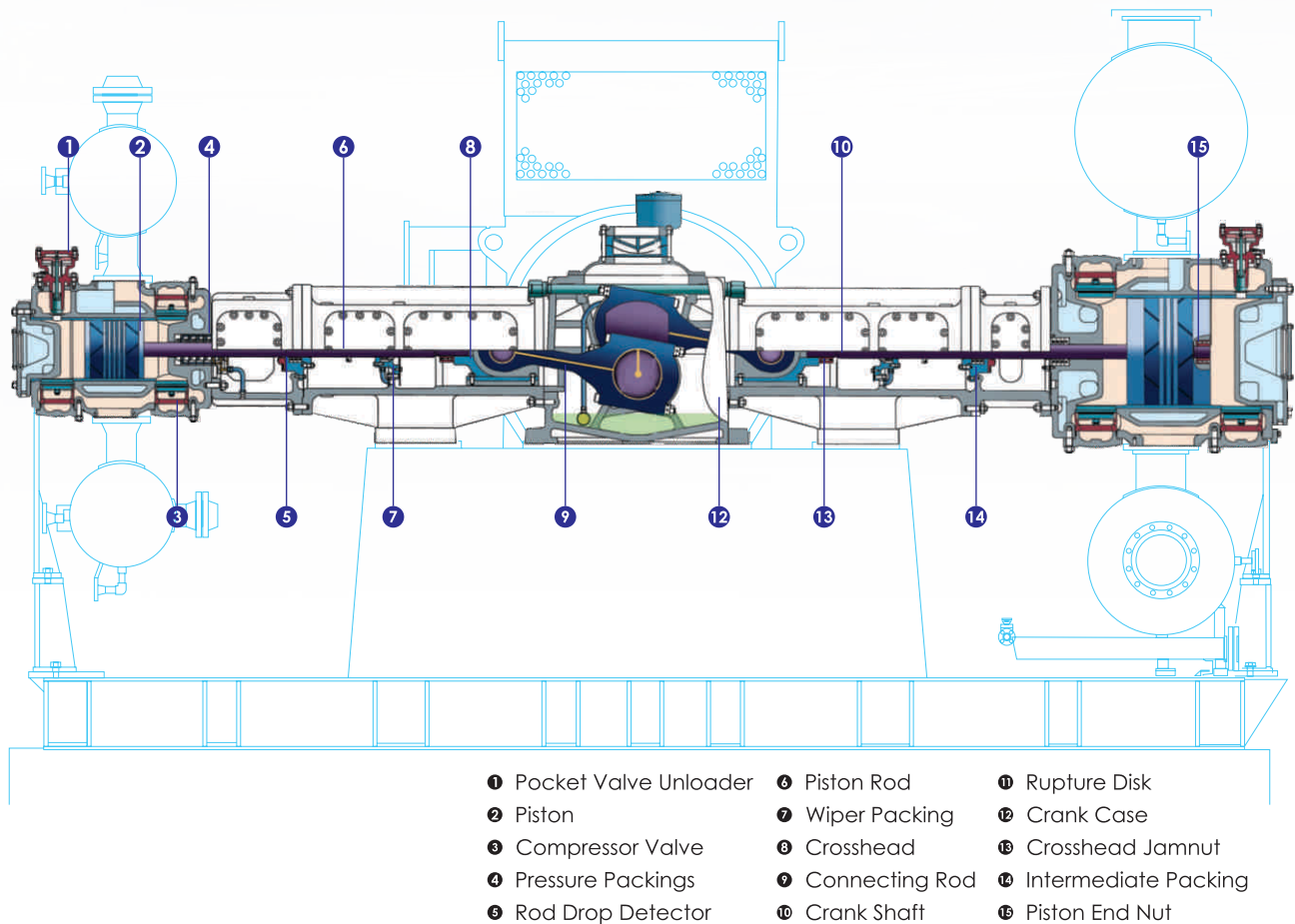


# KSOPT-TYPE

Mass capacity API-618 & Maker standard

Blanced-Opposed type compressor.

Available on mass capacity, high pressure, and extreme gases including sour H<sub>2</sub>S application of NACE MR-0175. Fully designed and manufactured according to API-618 or equivalent global standards.



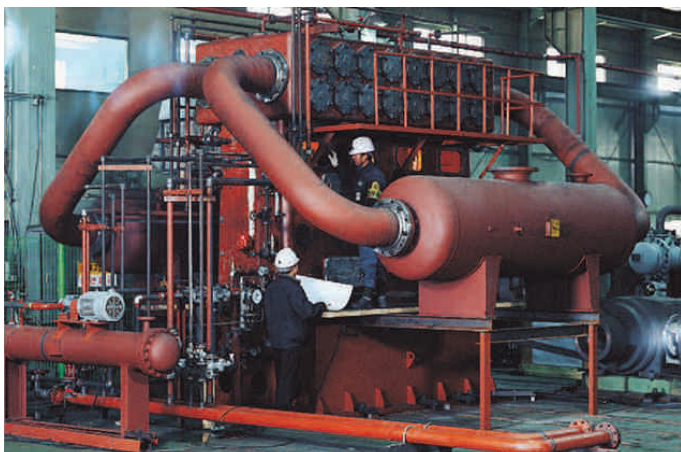
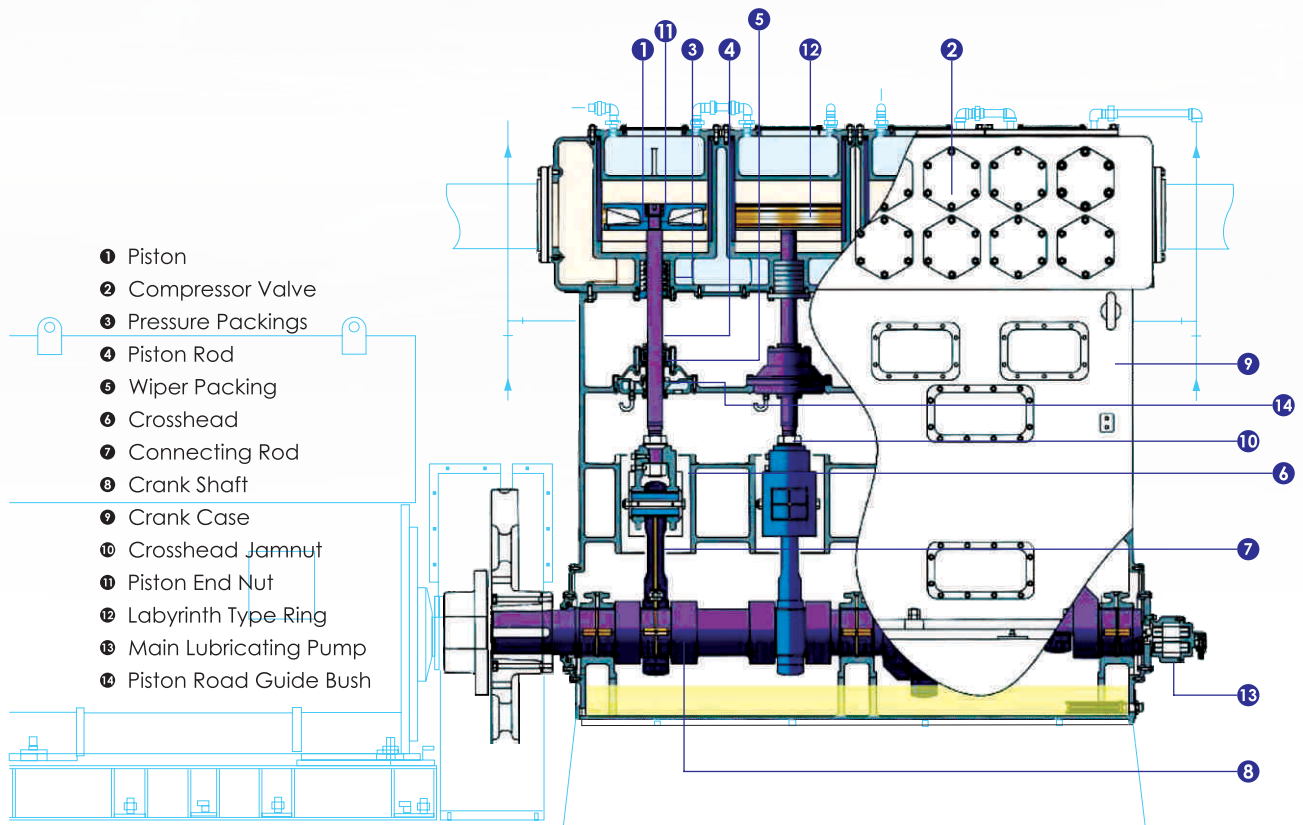
- Application Code :  
API-618 & Maker standard
- Handling Gas : Recycle Gas
- Type : Balance Opposed
- Motor Power : 1470 kw

# KSVG-TYPE

## Mass capacity Labyrinth design

Vertical type Compressor.

Specialized for non-contact labyrinth type piston structure. Fully designed and manufactured according to API-618 or equivalent global standard.



- Application Code :  
API-618 & Maker standard
- Handling Gas : Recycle Gas
- Type : Vertical
- Motor Power : 1350 kw

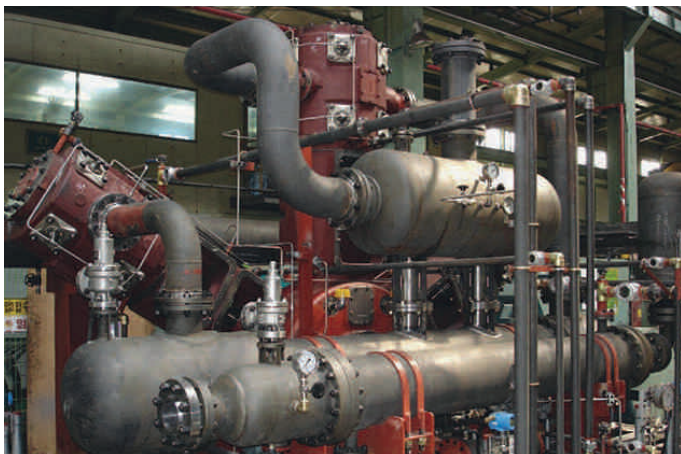
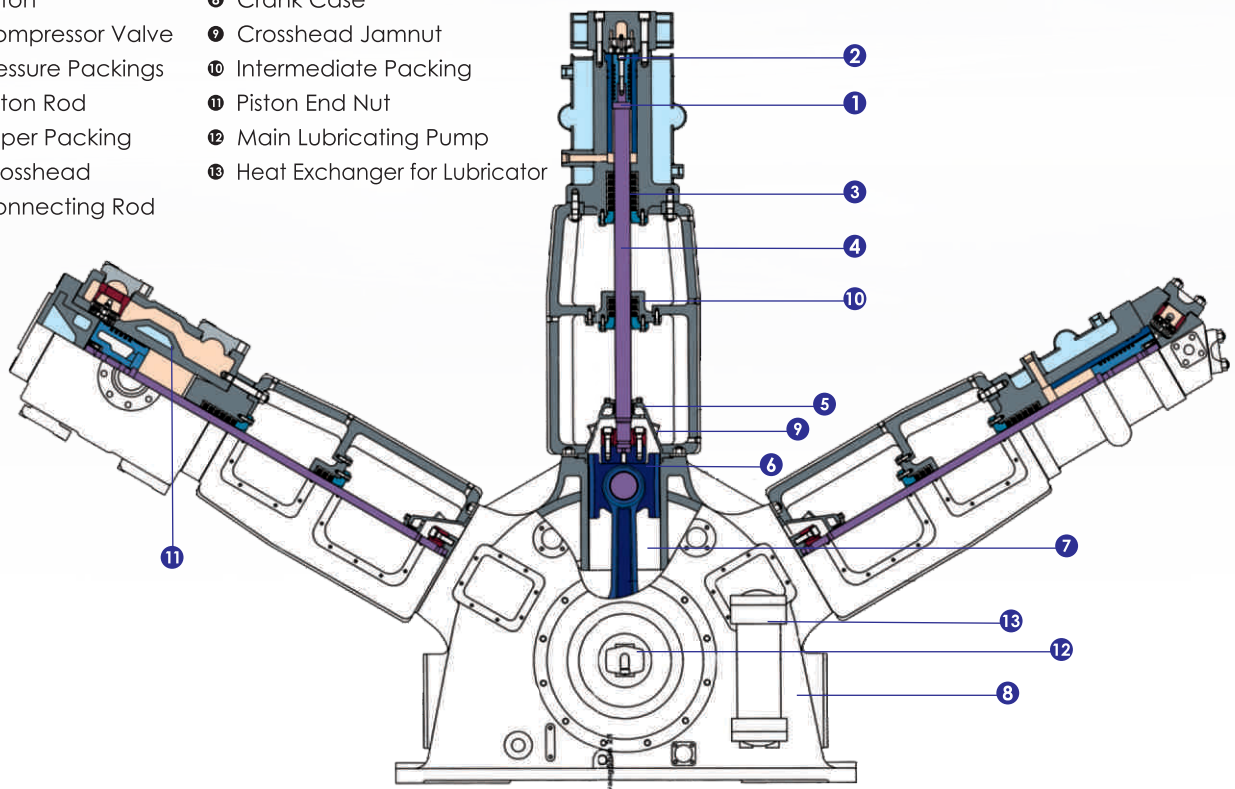
# KSW-TYPE

## Mid - capacity API-618 & Maker standard

Vertical type Compressor.

Mid-capacity for extreme gases. Fully designed and manufactured based on maker standard, and API-618 or equivalent global standard with deviations.

- |                     |                                 |
|---------------------|---------------------------------|
| ❶ Piston            | ❸ Crank Case                    |
| ❷ Compressor Valve  | ❹ Crosshead Jamnut              |
| ❸ Pressure Packings | ❺ Intermediate Packing          |
| ❹ Piston Rod        | ❻ Piston End Nut                |
| ❺ Wiper Packing     | ❼ Main Lubricating Pump         |
| ❻ Crosshead         | ❽ Heat Exchanger for Lubricator |
| ❼ Connecting Rod    |                                 |



- Application Code :  
API-618 & Maker standard
- Handling Gas : O<sub>2</sub> Gas

## KSDY, KSD(DH)-TYPE

### Small - capacity API-618 & Maker standard

Vertical type Compressor.

Small-capacity for extreme gases. Fully designed and manufactured based on maker standard, and API-618 or equivalent global standard with deviations.



- Application Code : API-618 & Maker standard
- Type : Vertical

- Handling Gas : CH<sub>4</sub> Gas
- Motor Power : 110 kw



- Application Code :  
API-618 & Maker standard
- Handling Gas : Mixed Gas
- Type : Vertical
- Motor Power : 150 kw

