



Rotary Screw Compressor Modules



Full Range of Air Compressors

Ingersoll Rand has the full range of air compressor packages for special applications, including those of aftermarket, drill rebuilders, and specialty packagers needing an air compressor module solution to their applications.

Compressor modules use proven Ingersoll Rand airends and components, backed by the best optional extended warranty in the industry and an extensive distribution network for parts and service.



SINGLE-STAGE COMPRESSOR MODULES

PACKAGE

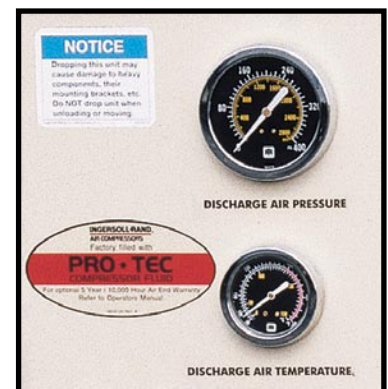
- Hydraulically driven compressor with onboard air cooled compressor oil cooler.
- Hydraulically driven fan for oil cooler. (Electric fan on HP185CMH and VHP90CMH)
- Pusher fan with straight through cooling flow keeps package interior temperature near ambient temperature.
- Heavy gauge sheet metal housing.
- Heavy duty frame with integral fork lift tubes. (VHP200CMH and larger)
- Two-stage air cleaner(s) with safety elements. (Single-Stage on VHP200CMH)
- Includes mounting interface for SAE "D" hydraulic motor. (VHP200CMH and larger)
- Flexible drive coupling. Standard interface for 1.75", 13 tooth, 8-16 DP/30°splined shaft hydraulic motor. (VHP200CMH and larger)
- Removable roof panel and side panels.
- Mounting provisions on sides and bottom of frame. (Bottom only on HP185CMH & VHP90CMH)
- Includes pressure regulation, automatic blowdown systems and 80 PSIG minimum pressure valve.

COMPRESSOR

- Heavy duty single-stage rotary screw compressor designed for mobile applications.
- Torsionally coupled and permanently aligned to drive motor utilizing a piloted adapter plate.
- Inlet unloader for stepless capacity control from full to no load.
- All external airend oil lines are steel tubing for long life.
- Anti-rumble valve.

INSTRUMENTATION

- Analog gauges for separator discharge pressure and airend discharge temperature. (Plus hour meter on HP185CMH & VHP90CMH)
- Air cleaner restriction indicator, oil level sight gauge.
- Shutdown switches installed for airend discharge and separator discharge temperature normally closed at 248°F.



Easy Access For Maintenance

SERVICEABILITY

VHP200CMH AND LARGER:

- Air cleaner element removal through end of package - panel removal not necessary.
- All customer interface bulkhead connections (oil, hydraulic, air) are conveniently located on the drive end of the package or directly on the oil cooler through the side of the package.
- All routinely serviced components are located at the outside surface of the package or on the Separation Module.
- Roof panel is removable with six fasteners.
- Separation Module located outside of the main module for ease of maintenance and mounting flexibility.
- Tapped surface mount provisions for compressor drive hydraulic motor.
- Airend can be easily removed from top and side of package by removal of six bolts. All components inside package are serviceable or removable from the top - no access from bottom required.
- Lifting eyes on cooler assembly.

HP185CMH and VHP90CMH:

- Integral separation system.
- Conveniently located service panels.
- External oil fill and drain.



Remote Mounted Separation Module

TWO-STAGE HIGH PRESSURE COMPRESSOR MODULES

PACKAGE

- Choice of shaft drive (CM or CMH), direct engine coupling (CMH only), or hydraulic drive of compressor (CMH only).
- Onboard air cooled compressor oil cooler, fan shaft driven (CM) or optional hydraulic drive (CMH).
- Pusher fan with straight through cooling flow keeps package interior temperature near ambient.
- Heavy gauge sheet metal housing.
- Heavy duty frame with integral fork lift tubes.
- Dual two-stage air cleaners with safety elements.
- Available hydraulic drive adapter plate for mounting motor (CMH only).
- Flexible drive coupling included with hydraulic drive adapter plate.
- Removable roof panel (CMH only) and side or rear access panels.
- Mounting provisions on sides and bottom of frame.
- Includes pressure regulation, separator scavenge, and automatic blowdown systems, 165 PSIG min. pressure valve.
- Dual two-stage air cleaners with safety elements.
- Air filters protected inside the package from rain and damage.
- Roof mounted automatic shutters protect oil cooler from environment and debris (CM only).
- Integral lifting hard points at top corners of housing.



COMPRESSOR

- Heavy duty two-stage HR2 or HR2.5 (depending on capacity) rotary screw compressor designed for mobile applications.
- Inlet butterfly valve for stepless capacity control from full to no load.
- All external airend oil lines are steel tubing for long life.
- Inlet anti-rumble valve and discharge check valve protects the compressor.

INSTRUMENTATION

- Analog gauges for separator discharge pressure and airend discharge temperature.
- Air cleaner restriction indicator, oil level sight gauge.
- Shutdown switches installed for airend discharge and separator discharge temperature. Normally closed at 248°F.



EASY ACCESS FOR MAINTENANCE

SERVICEABILITY

- All customer interface bulkhead connections (oil, hydraulic, air) are conveniently located near the drive end of the package.
- Convenient service access doors (on both sides) for ready access to dual oil filters & air filters.
- All other routinely serviced components are located at the outside surface of the package or on the Separation Module.
- Roof panel is easily removable.
- Separation Module located outside of the main module for ease of maintenance



and mounting flexibility.

- If specified, tapped surface mount provisions, for hydraulic motor.
- Airend can be easily removed from top side of package by removal of eight bolts. All components inside package are serviceable or removable from the top - no access from bottom required.

OEM AIRENDS – Ingersoll Rand also offers rotary screw airends for all your OEM applications starting @ min-max capacity of 60 cfm - 4000 cfm and ranging from 80 psi - 350 psi.

5 YEARS OR 10,000 HOURS AIREND WARRANTY*

WARRANTY FOR SINGLE-STAGE AND TWO-STAGE COMPRESSOR MODULES

The package is warranted for 12 months from date of shipment or 2,000 hours.

AIREND WARRANTY

The earlier of twenty-four (24) months from shipment to or the accumulation of 4,000 hours of service by the initial user. For airends, the



warranty against defects will include replacement of the complete airend, provided the original airend is returned assembled and unopened.

LIMITED OPTIONAL EXTENDED WARRANTY*

The earlier of sixty (60) months from shipment to or the accumulation of 10,000 hours of service.

The optional warranty is limited to defects in rotors, housing, bearings and gears and provided all the following conditions are met:

1. The original airend is returned assembled and unopened.
2. Documented continued use of genuine Ingersoll Rand parts, fluids, oil and air filters.
3. Documented maintenance is performed at prescribed intervals.
4. Maintain a maintenance log to verify proper maintenance intervals were performed.

Specifications

Single-Stage Rotary Screw Compressor Modules

Model	VHP90CMH	HP185CMH	VHP200CMH	VHP300CMH	VHP400CMH	VHP500CMH	VHP550CMH	HP600CMH	XP6500CMH
Rated Capacity (cfm)	90	185	200	300	400	500	550	600	650
Pressure (psi)	175	150	200	200	200	200	175	150	125
RPM Input	2800	2800	1850	2750	1700	2100	2100 or 2300	2300	2500
Asend Size	CE55G	85 mm	CF90	CF90	178.5 mm	178.5 mm	178.5 mm	178.5 mm	178.5 mm
Asend Stage	1	1	1	1	1	1	1	1	1
Input HP Required (Includes Fan)	36	62	71	111	152	189	198	186	184
Physical Specifications									
Compressor Module (lb)	328	480	1145	1145	1540	1540	1540	1540	1540
Separation Module (lb)	N/A	N/A	260	260	260	260	260	260	260
Oil (lb)	14	22	75	75	75	75	75	75	75
Total (Dry) (lb)	328	480	1405	1405	1800	1800	1800	1800	1800
Total (Wet) (lb)	342	500	1480	1480	1875	1875	1875	1875	1875
Dimensions									
Length (in.)	28.5	35	43.4	43.4	43.4	43.4	43.4	43.4	43.4
Width (in.)	20.6	23	38.4	38.4	38.4	38.4	38.4	38.4	38.4
Height (in.)	22	36.5	40	40	40	40	40	40	40
Separation Module									
Length (in.)	N/A	N/A	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Width (in.)	N/A	N/A	18.5	18.5	18.5	18.5	18.5	18.5	18.5
Height (in.)	N/A	N/A	46.2	46.2	46.2	46.2	46.2	46.2	46.2
A/E Discharge (in.)	N/A	N/A	2	2	2	2	2	2	2
FAN Power Requirements									
Fan Drive Method	12 or 24 VDC	12 or 24 VDC	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Hydraulic Flow Required GPM	N/A	N/A	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Hydraulic Pressure Required	N/A	N/A	315	315	600	600	600	600	600
Fan RPM	2800	2800	1750	1750	1750	1750	1750	1750	1750
* Fan HP	<1	<1	3	3	5	5	5	5	5
Hydraulic Connections (Inlet & Outlet)	N/A	N/A	-12 SAE	-12 SAE	-12 SAE	-12 SAE	-12 SAE	-12 SAE	-12 SAE
Case Drain Provided	N/A	N/A	-6 SAE	-6 SAE	-6 SAE	-6 SAE	-6 SAE	-6 SAE	-6 SAE

* Theoretical hydraulic power required at fan motor. Fan motor total efficiency factored in.

Specifications

Two-Stage Rotary Screw Compressor Modules

Model	XHP650CM	XHP650CMH	XHP750CM	XHP750CMH	XHP825CM	XHP825CMH	XHP900CM	XHP900CMH	XHP1070CM	XHP1070CMH	XHP1250CM	XHP1250CMH
Rated Capacity (cfm)	650	650	750	750	825	825	900	900	1070	1070	1250	1250
Pressure (psi)	350	350	350	350	350	350	350	350	350	350	350	350
RPM Input	1850	1850	1850/2100	1850/1200	1850/2100	1850/2100	1800/2100	1800/2100	1800/2100	1800/2100	1800/2100	1800/2100
Airend Size	HR2	HR2	HR2	HR2	HR2	HR2	HR2	HR2	HR2.5	HR2.5	HR2.5	HR2.5
Airend Stage	2	2	2	2	2	2	2	2	2	2	2	2
Input HP Required (includes Fan)	291	285	330/336	324	352/357	345	395/401	390	437/440	437/434	496/517	502/512
Physical Specifications												
Compressor Module (lb)	3100	3100	3100	3100	3100	3100	3100	3100	3400	3400	3400	3400
Separation Module (lb)	815	815	815	815	815	815	815	815	815	815	815	815
Oil (lb)	407	407	407	407	407	407	407	407	407	407	407	407
Total (Dry) (lb)	3915	3915	3915	3915	3915	3915	3915	3915	4215	4215	4215	4215
Total (Wet) (lb)	4322	4322	4322	4322	4322	4322	4322	4322	4622	4622	4622	4622
Dimensions												
Length (in.)	63.6	56	63.6	56	63.6	56	63.6	56	63.6	56	63.6	56
Width (in.)	51.6	51	51.6	51	51.6	51	51.6	51	51.6	51	51.6	51
Height (in.)	59.2	55.4	59.2	55.4	59.2	55.4	59.2	55.4	59.2	55.4	59.2	55.4
Separation Module												
length (in.)	37	37	37	37	37	37	37	37	37	37	37	37
Width (in.)	26	26	26	26	26	26	26	26	26	26	26	26
Height (in.)	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
A/E Discharge (in.)	3	3	3	3	3	3	3	3	3	3	3	3
FAN Power Requirements												
Fan Drive Method	Airend shaft	Hydraulic	Airend shaft	Hydraulic	Airend shaft	Hydraulic	Airend shaft	Hydraulic	Airend shaft	Hydraulic	Airend shaft	Hydraulic
Hydraulic Flow Required GPM	N/A	12.6	N/A	12.6	N/A	12.6	N/A	12.6	N/A	15.5	N/A	19.4
Hydraulic Pressure Required	N/A	920	N/A	920	N/A	920	N/A	920	N/A	1400	N/A	2200
Fan RPM	1850	1300	1850/2100	1300	1850/2100	1300	1800/2100	1300	1800/2100	1600	1800/2100	2000
Fan HP	13	7 *	13/19	7 *	14/19	7 *	12/18	7 *	13/19	13 *	19/30	25 *
Hydraulic Connections (inlet & Outlet)	N/A	-12 SAE	N/A	-12 SAE	N/A	-12 SAE	N/A	-12 SAE	N/A	-12 SAE	N/A	-12 SAE
Gas Drain Provided	N/A	-6 SAE	N/A	-6 SAE	N/A	-6 SAE	N/A	-6 SAE	N/A	-6 SAE	N/A	-6 SAE

* Theoretical hydraulic power required at fan motor. Fan motor total efficiency factored in.



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