

# Rotary Screw Compressor Modules



Doosan Infracore  
Portable Power



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## Single-Stage Compressor Modules

### Package

- Hydraulically driven fan for oil cooler (electric fan on HP185CMH)
- 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 (VHP300CMH and larger)
- Two-stage air cleaner(s) with safety elements (single-stage on VHP300CMH)
- Includes mounting interface for SAE "D" hydraulic motor (VHP300CMH and larger)
- Flexible drive coupling with standard interface for 1.75", 13 tooth, 8-16 DP/30° splined shaft hydraulic motor (VHP300CMH and larger)
- Hydraulically driven compressor with hydraulic motor included in the package (HP185CMH only)
- Removable roof panel and side panels
- Mounting provisions on sides and bottom of frame (bottom only on HP185CMH)
- 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)
- 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

##### VHP300CMH 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:

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



Remote Mounted Separation Module

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## Single-Stage Rotary Screw Compressor Modules

	Model	HP185CMH	VHP300CMH	VHP500CMH	HP600CMH	VHP600CM
Engine	Rated Capacity – cfm (m <sup>3</sup> /min)	185 (5.2)	300 (8.5)	500 (14.2)	600 (17)	600 (17)
	Pressure – psi (bar)	150 (10.3)	200 (13.8)	200 (13.8)	150 (10.3)	200 (13.8)
	RPM Input	2800	2750	2100	2300	2200
	Airend Size	85mm	CF90	178.5mm	178.5mm	226mm
	Airend Stage	1	1	1	1	1
	Input HP Required (Includes Fan)	62	111	189	186	220
Physical Specifications	Compressor Module – lb	480	1145	1540	1540	2160
	Separation Module – lb	N/A	260	260	260	260
	Oil – lb	22	75	75	75	75
	Total (Dry) – lb	480	1405	1800	1800	2420
	Total (Wet) – lb	500	1480	1875	1875	2495
Dimensions	Length – in (mm)	35 (889)	43.4 (1102.4)	43.4 (1102.4)	43.4 (1102.4)	52.5 (1333.5)
	Width – in (mm)	23 (584.2)	38.4 (975.4)	38.4 (975.4)	38.4 (975.4)	41.9 (1064)
	Height – in (mm)	36.5 (927.1)	40 (1016)	40 (1016)	40 (1016)	43 (1092.2)
Separation Module	Length – in (mm)	N/A	25 (635)	25 (635)	25 (635)	25 (635)
	Width – in (mm)	N/A	22.5 (571.5)	22.5 (571.5)	22.5 (571.5)	22.5 (571.5)
	Height – in (mm)	N/A	48.6 (1234.4)	48.6 (1234.4)	48.6 (1234.4)	48.6 (1234.4)
	A/E Discharge – in	N/A	2	2	2	2
FAN Power Requirements	Fan Drive Method	12 or 24 VDC	Hydraulic	Hydraulic	Hydraulic	Airend Shaft
	Hydraulic Flow Required GPM	N/A	13.2	13.2	13.2	N/A
	Hydraulic Pressure Required	N/A	315	600	600	N/A
	Fan RPM	2800	1750	1750	1750	N/A
	*Fan HP	< 1	3	5	5	N/A
	Hydraulic Connections (Inlet & Outlet)	N/A	-12 SAE	-12 SAE	-12 SAE	N/A
	Case Drain Provided	N/A	-6 SAE	-6 SAE	-6 SAE	N/A

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

## 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
- 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 and 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



## Two-Stage Rotary Screw Compressor Modules

	Model	XHP750CM	XHP750CMH	XHP900CM	XHP900CMH	XHP1070CM	XHP1070CMH	XHP1250CM	XHP1250CMH
<b>Engine</b>	Rated Capacity – cfm (m <sup>3</sup> /min)	750 (21.2)	750 (21.2)	900 (25.5)	900 (25.5)	1070 (30.3)	1070 (30.3)	1250 (35.4)	1250 (35.4)
	Pressure – psi (bar)	350 (24.1)	350 (24.1)	350 (24.1)	350 (24.1)	350 (24.1)	350 (24.1)	350 (24.1)	350 (24.1)
	RPM Input	1850/2100	1850/2100	1800/2100	1800/2100	1800/2100	1800/2100	1800/2100	1800/2100
	Airend Size	HR2	HR2	HR2	HR2	HR2.5	HR2.5	HR2.5	HR2.5
	Airend Stage	2	2	2	2	2	2	2	2
<b>Physical Specifications</b>	Input HP Required (Includes Fan)	330/336	324	395/401	390	437/440	437/434	496/517	502/512
	Compressor Module – lb	3100	3100	3100	3100	3400	3400	3400	3400
	Separation Module – lb	815	815	815	815	815	815	815	815
	Oil – lb	407	407	407	407	407	407	407	407
	Total (Dry) – lb	3915	3915	3915	3915	4215	4215	4215	4215
<b>Dimensions</b>	Total (Wet) – lb	4322	4322	4322	4322	4622	4622	4622	4622
	Length – in	63.6 (1615.4)	56 (1422.4)	63.6 (1615.4)	56 (1422.4)	63.6 (1615.4)	56 (1422.4)	63.6 (1615.4)	56 (1422.4)
	Width – in	51.6 (1310.6)	51 (1295.4)	51.6 (1310.6)	51 (1295.4)	51.6 (1310.6)	51 (1295.4)	51.6 (1310.6)	51 (1295.4)
	Height – in	59.2 (1503.7)	55.4 (1407.2)	59.2 (1503.7)	55.4 (1407.2)	59.2 (1503.7)	55.4 (1407.2)	59.2 (1503.7)	55.4 (1407.2)
	<b>Separation Module</b>	Length – in	37 (939.8)	37 (939.8)	37 (939.8)	37 (939.8)	37 (939.8)	37 (939.8)	37 (939.8)
Width – in		26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)	26 (660.4)
Height – in		60.8 (1544.3)	60.8 (1544.3)	60.8 (1544.3)	60.8 (1544.3)	60.8 (1544.3)	60.8 (1544.3)	60.8 (1544.3)	60.8 (1544.3)
A/E Discharge – in		3	3	3	3	3	3	3	3
<b>FAN Power Requirements</b>	Fan Drive Method	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	15.5	N/A	19.4
	Hydraulic Pressure Required	N/A	920	N/A	920	N/A	1400	N/A	2200
	Fan RPM	1850/2100	1300	1800/2100	1300	1800/2100	1600	1800/2100	2000
	*Fan HP	13/19	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
	Case Drain Provided	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.

## 5 Years or 10,000 Hours Airend Warranty\*

### Module Warranty

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

### Airend Warranty

The earlier of twenty-four (24) months from shipment or the accumulation of 4,000 hours of service by the initial user. 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 or the accumulation of 10,000 hours of service. The optional warranty is limited to defects in rotors, housing, bearings and gears. ALL THE FOLLOWING CONDITIONS MUST BE MET:

1. The original airend is returned assembled and unopened.
2. Documented continued use of genuine parts, fluids, oil and air filters from an authorized Doosan Infracore Portable Power dealer.
3. Documented maintenance is performed at prescribed intervals.

Doosan Infracore Portable Power air compressors are not designed, intended or approved for breathing air. Compressed air should not be used for breathing air applications under any circumstances.

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