



# Unicla

*Advanced compressor technology for the world*

## B Group

### 200 Series Compressors





### Features

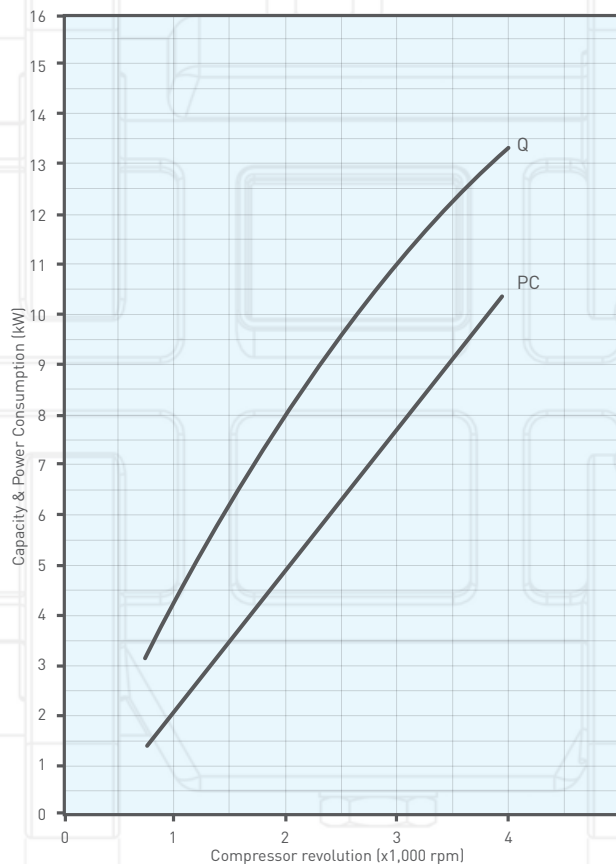
The Unicla 200 series compressors are designed to meet the demands of larger mid-range single and twin air-conditioning systems, and refrigeration applications where the system capacity requirement is **6-11 kW**.

Many transport refrigeration and air-conditioning systems in service today have compressors that are either too small or too large. The Unicla 200 series has always solved this 'gap' in compressor sizing and has continued to be known as the most reliable, highest capacity 200 cc compressor suitable for heavy duty transport refrigeration, military, marine, minibus, mining and agricultural applications.

Refrigerant leakage from compressor body O-rings is eliminated by separately enclosing the entire compressor working assembly in a one-piece crankcase, which also reduces the chance of heat distortion to the outer housing. This results in the compressor maintaining piston alignment and high compression for the duration of its service life, a feature Unicla is well known for.

The UPF, UMF and UXF model 200 series compressors have been upgraded internally to suit R404a and R452a low-temperature refrigerants. Features include higher-gauge reed valves, a further refined and polished swashplate and RL32 polyol ester (POE) oil.

**200 Series Performance - R134a refrigerant**



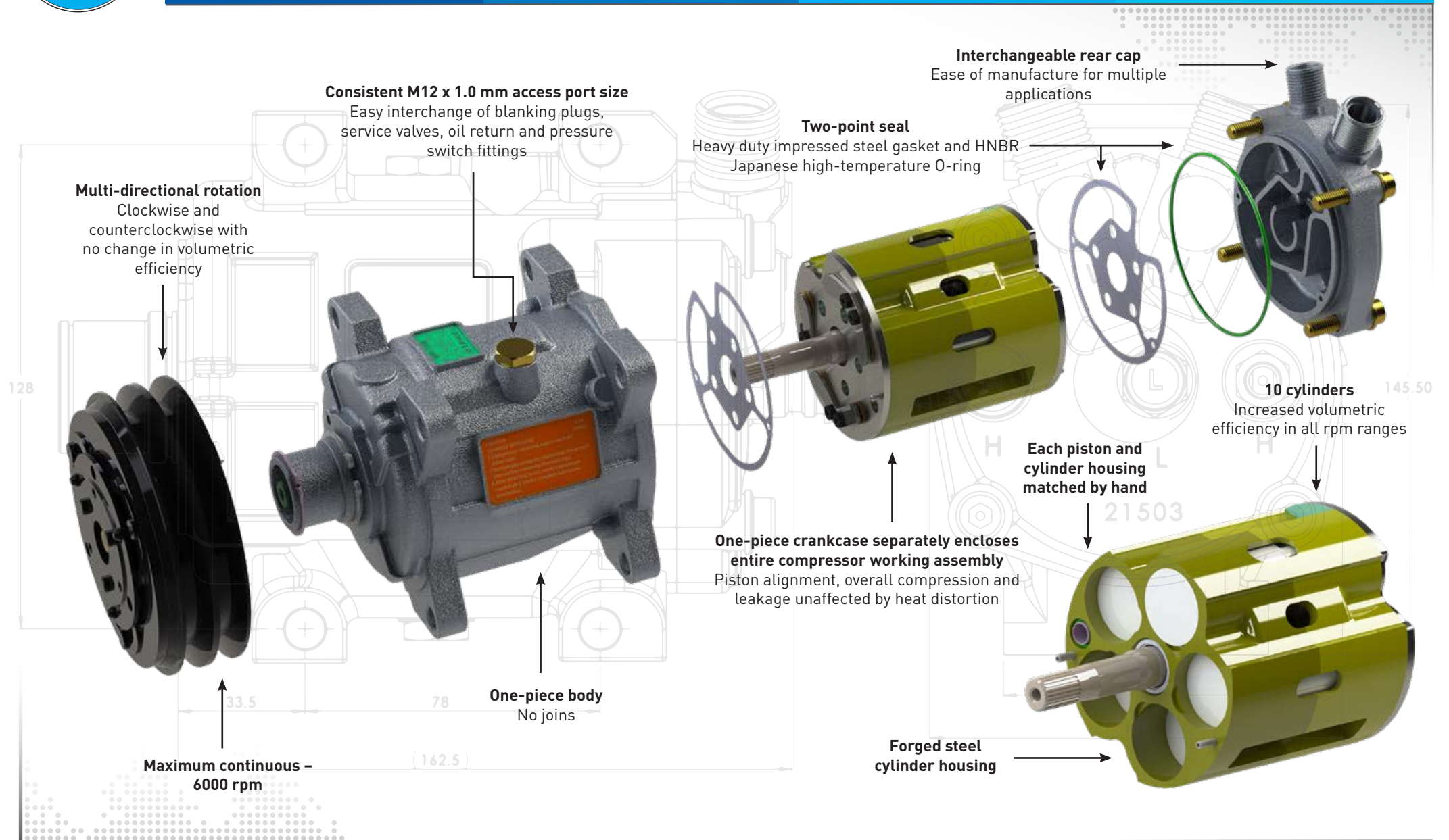
\*Based on 9°C suction vapour temperature and 5°C subcooling.  
 Q - Cooling capacity  
 PC - Power Consumption

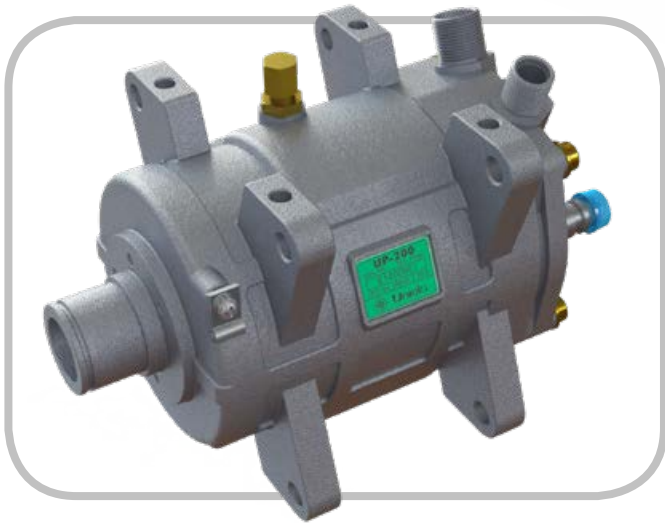
Conditions*	
Discharge pressure	15.2 bar
Condensing temperature	58°C
Suction pressure	1.82 bar
Evaporating temperature	-1°C



# Unicla

## Advantages 200 Series Compressors





### Features

- Unicla 10-cylinder swashplate
- Suitable for applications with a system capacity requirement of **6-11 kW**
- Displacement: **200 cc/rev**
- Maximum continuous: **6000 rpm**
- Smooth and quiet operation with excellent performance through all rev ranges
- Clockwise and counterclockwise rotation with no change in volumetric efficiency
- Heavy duty impressed steel gasket and HNBR Japanese high-temperature O-ring (two-point seal)
- Forged steel cylinder housing
- Drop-forged 5050 aluminium pistons with synthetic PTFE heat-treated rings
- Lip seal with high tolerance to heat and operational fatigue
- Genuine NSK bearings throughout

### Mounting

The UP and UPF models are compatible with mounting brackets designed for compressors with 80 mm lug spacings and can be interchanged with many compressors used in various applications.

### Service valves

Low- and high-side service valves are fitted to the rear cap, including a high-pressure relief valve.

### Oil return

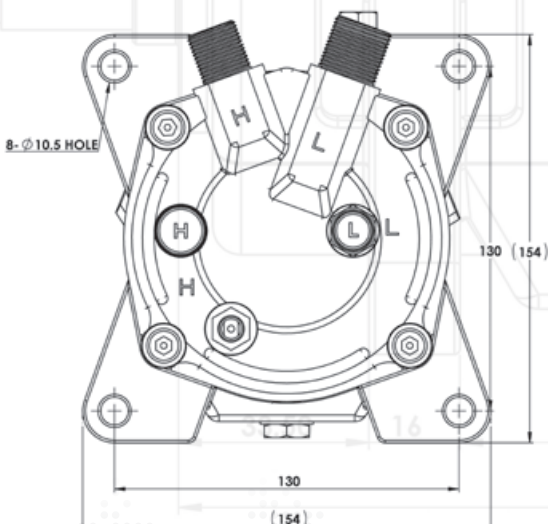
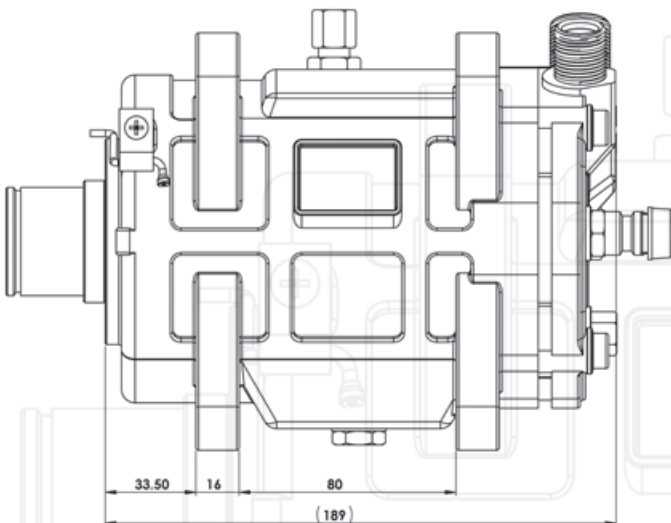
An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is fitted on top of the compressor. It has a unique flow design suited to the Unicla oil separator (Part No. OS000010) and is interchangeable with the low-side service valve.

### Other ports and fittings

Consistent M12 x 1.0 mm access port size. Easy interchange of blanking plugs, service valves, oil return and pressure switch fittings.

### Hose ports

Please see *Clutch, rear cap and hose port options* on page 8.



R134a refrigerant		
Compressor	Oil	Mounting
UP200	PAG56 (180 ml)	Ear mount
R404a   R452a refrigerant		
Compressor	Oil	Mounting
UPF200	POE32 (180 ml)	Ear mount





### Features

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- Heavy duty impressed steel gasket and HNBR Japanese high-temperature O-ring (two-point seal)
- Forged steel cylinder housing
- Drop-forged 5050 aluminium pistons with synthetic PTFE heat-treated rings
- Lip seal with high tolerance to heat and operational fatigue
- Genuine NSK bearings throughout

### Mounting

The UM and UMF model compressors feature a new mounting configuration of four conventional bolt-through mounting points that have been narrowed to 92 mm at the top and 87 mm at the bottom. They are directly compatible with TM21 and QP21 compressors.

### Service valves

High-pressure relief valve fitted, service valves not fitted.

### Oil return

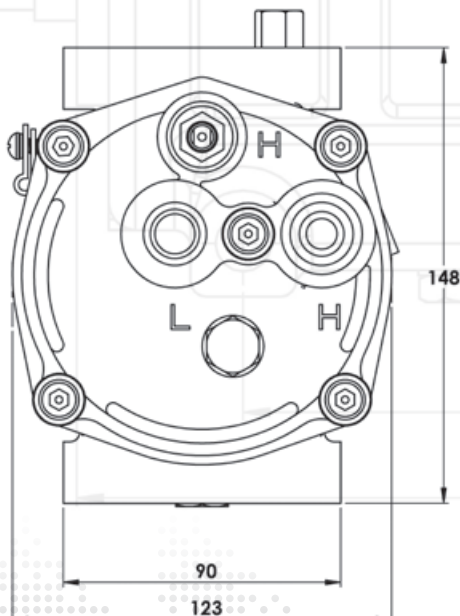
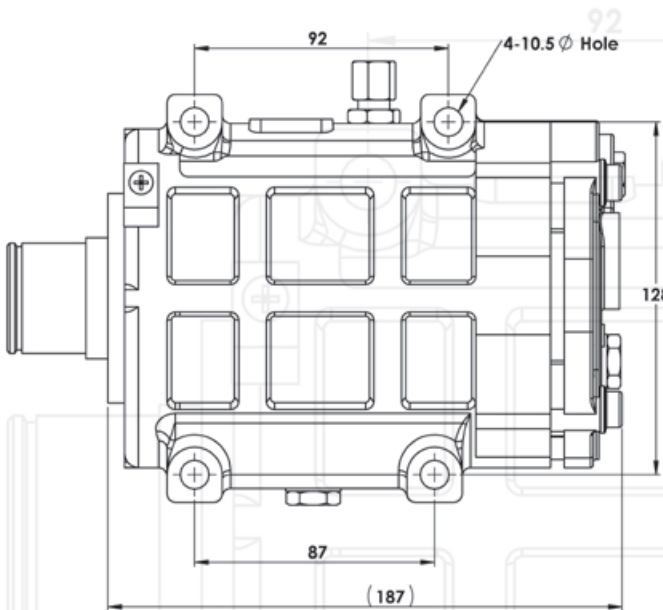
An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is fitted on top of the compressor. It has a unique flow design suited to the Unicla oil separator (Part No. OS000010) and is interchangeable with the low-side service valve.

### Other ports and fittings

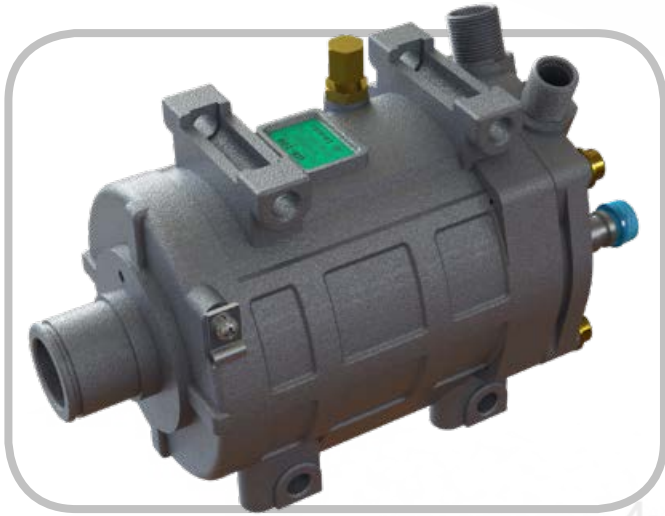
Consistent M12 x 1.0 mm access port size. Easy interchange of blanking plugs, service valves, oil return and pressure switch fittings.

### Hose ports

Please see *Clutch, rear cap and hose port options* on page 8.



R134a refrigerant		
Compressor	Oil	Mounting
UM200	PAG56 (180 ml)	TM/QP21 compatible
R404a   R452a refrigerant		
Compressor	Oil	Mounting
UMF200	POE32 (180 ml)	TM/QP21 compatible



### Features

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- Maximum continuous: **6000 rpm**
- Smooth and quiet operation with excellent performance through all rev ranges
- Clockwise and counterclockwise rotation with no change in volumetric efficiency
- Heavy duty impressed steel gasket and HNBR Japanese high-temperature O-ring (two-point seal)
- Forged steel cylinder housing
- Drop-forged 5050 aluminium pistons with synthetic PTFE heat-treated rings
- Lip seal with high tolerance to heat and operational fatigue
- Genuine NSK bearings throughout

### Mounting

The UX and UXF models are direct mount (bolt-through) and have side mounting points 94 mm apart.

### Service valves

Low- and high-side service valves are fitted to the rear cap, including a high-pressure relief valve.

### Oil return

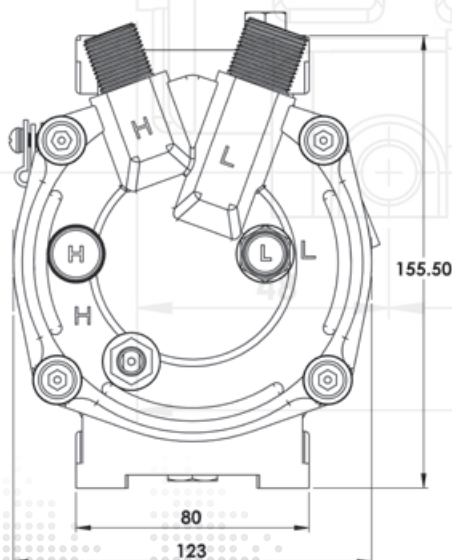
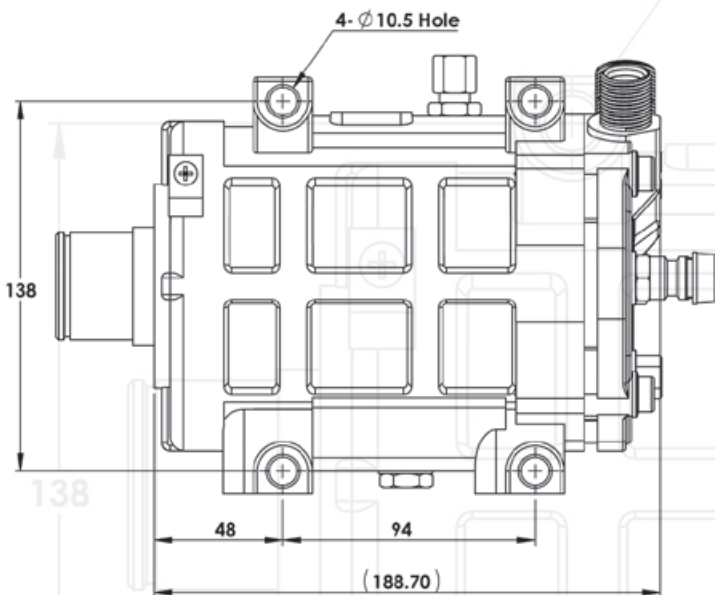
An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is fitted on top of the compressor. It has a unique flow design suited to the Unicla oil separator (Part No. OS000010) and is interchangeable with the low-side service valve.

### Other ports and fittings

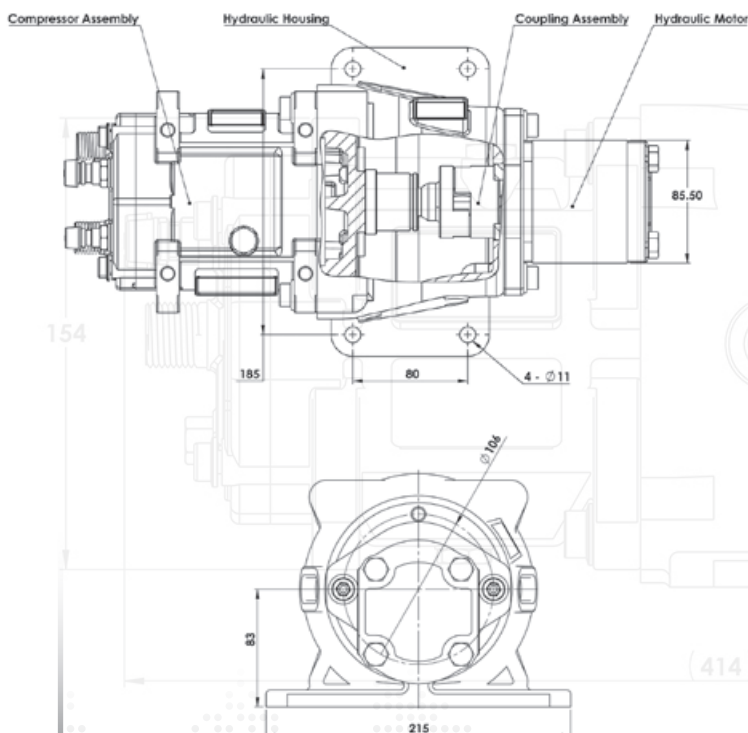
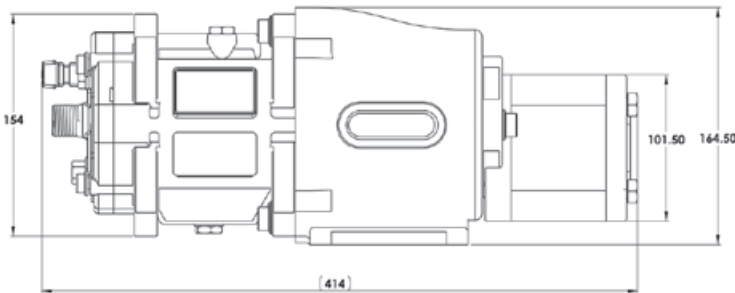
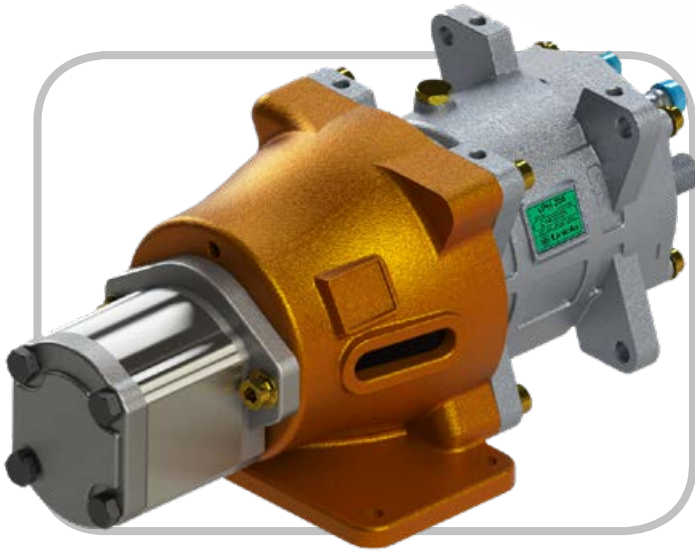
Consistent M12 x 1.0 mm access port size. Easy interchange of blanking plugs, service valves, oil return and pressure switch fittings.

### Hose ports

Please see *Clutch, rear cap and hose port options* on page 8.



R134a refrigerant		
Compressor	Oil	Mounting
UX200	PAG56 (180 ml)	Direct mount
R404a   R452a refrigerant		
Compressor	Oil	Mounting
UXF200	POE32 (180 ml)	Direct mount



### Features

The Unicla 200 series Hydraulic Drive compressors are universally adaptable and can be driven by any 11-15 cc hydraulic motor with a standard SAE twin-bolt A-type mounting configuration and 5/8" nine-tooth shaft. The unit can be supplied as a complete housing and compressor kit without the hydraulic motor, or the hydraulic drive housing kit on its own without the compressor.

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- Clockwise and counterclockwise rotation with no change in volumetric efficiency
- Heavy duty impressed steel gasket and HNBR Japanese high-temperature O-ring (two-point seal)
- Forged steel cylinder housing
- Drop-forged 5050 aluminium pistons with synthetic PTFE heat-treated rings
- Lip seal with high tolerance to heat and operational fatigue
- Genuine NSK bearings throughout

### Mounting

The UPH and UPHF models are designed to mount to a solid base plate at four points equal to or greater than 185 x 80 mm in diameter.

### Service valves

Low- and high-side service valves are fitted to the rear cap, including a high-pressure relief valve.

### Oil return port

An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is supplied as standard on both UPH and UPHF models. It has a unique flow design suited to the Unicla oil separator (Part No. OS000010) and is interchangeable with the low-side service valve.

### Other ports and fittings

Consistent M12 x 1.0 mm access port size. Easy interchange of blanking plugs, service valves, oil return and pressure switch fittings.

### Hose ports

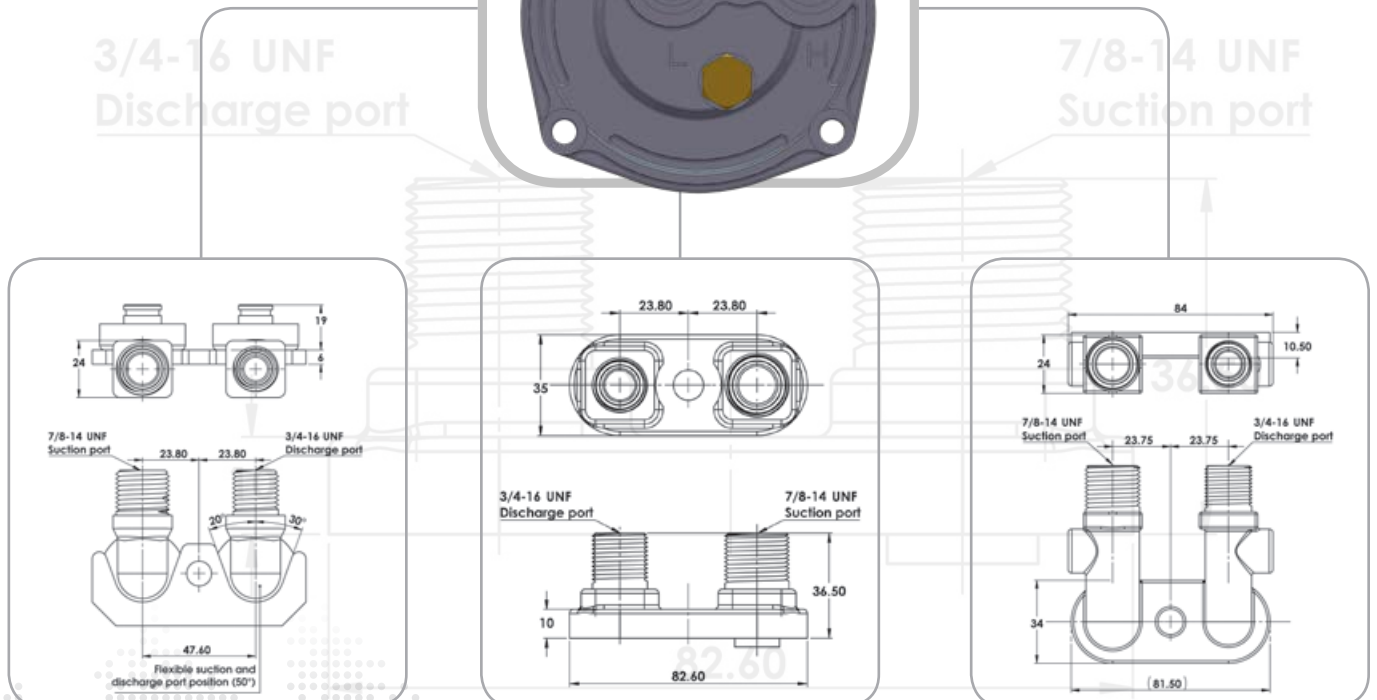
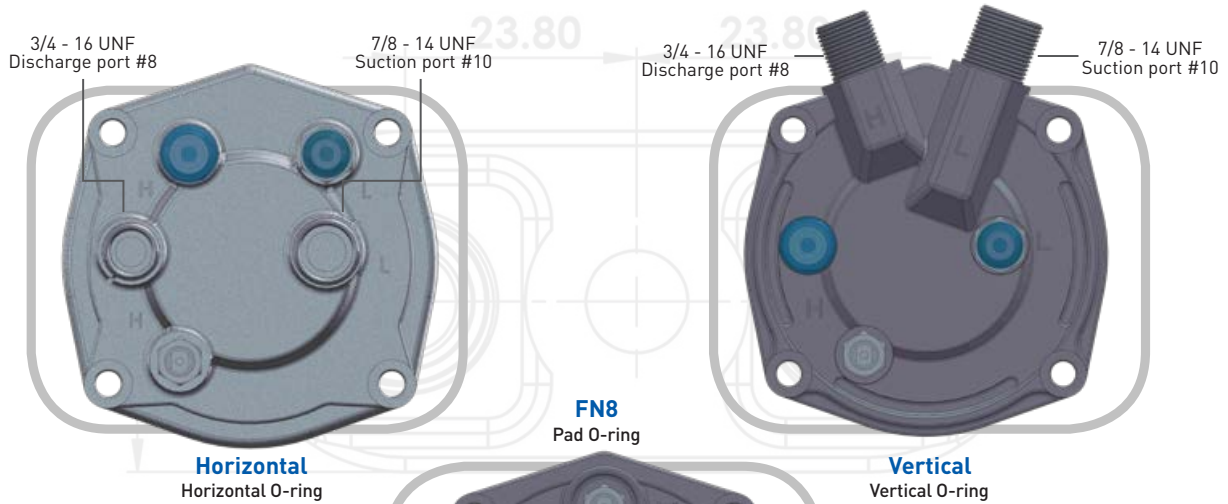
Please see *Clutch, rear cap and hose port options* on page 8.

R134a refrigerant		
Compressor	Oil	Mounting
UPH200	PAG56 (180 ml)	Base mount
R404a   R452a refrigerant		
Compressor	Oil	Mounting
UPHF200	POE32 (180 ml)	Base mount



### Clutches available for 200 Series Compressors

Type	125	135	145	152	12V	24V
AA-Groove			✓		✓	✓
B-Groove			✓		✓	✓
BB-Groove			✓		✓	✓
6-Groove	✓				✓	✓
8-Groove		✓			✓	✓
10-Groove		✓			✓	✓







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