

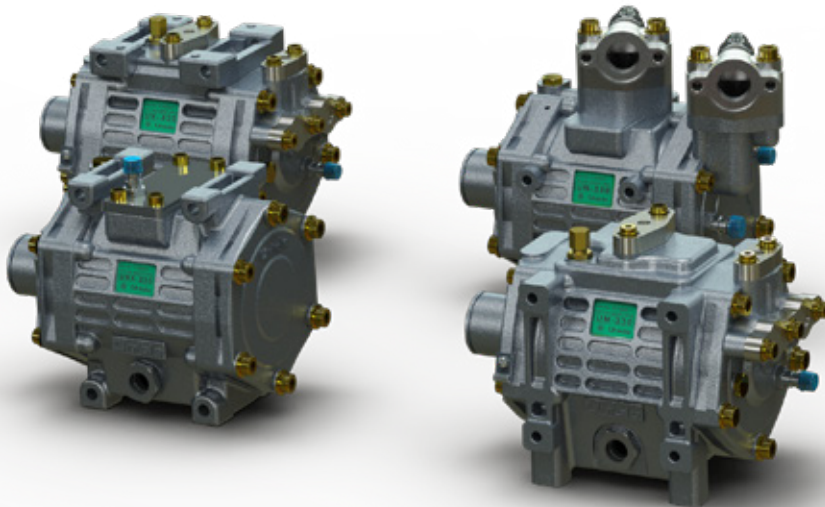


Unicla

Advanced compressor technology for the world

B Group

300 Series Compressors





Features

The Unicla 300 series compressors are the ideal choice for designers of air-conditioning and refrigeration systems in larger commercial applications where the system capacity requirement is **10-16 kW**. For systems with two or even three evaporators, Unicla 300 series compressors can be used as a single unit or mounted in twin or triple configurations.

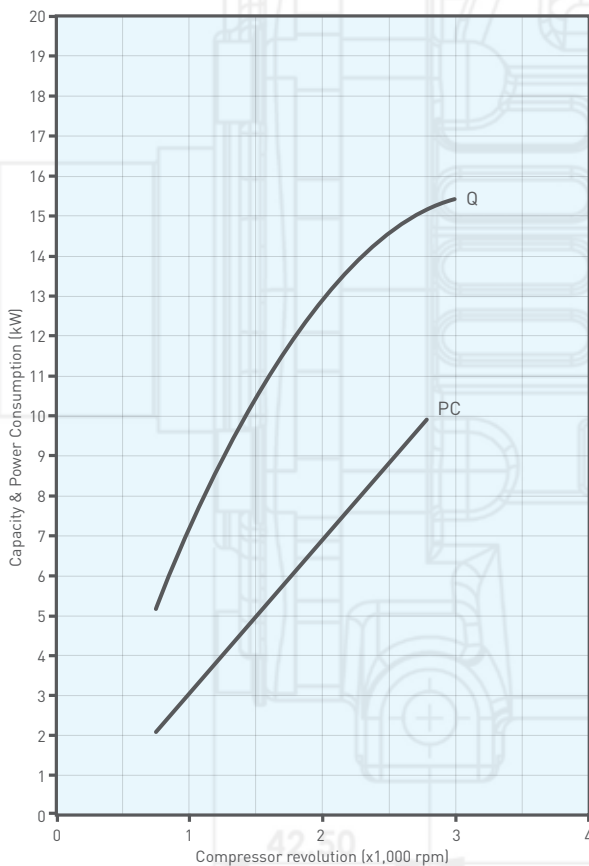
The 300 series has porting for horizontal or vertical hose connections as standard, and heavy duty blanking plates installed on outlets that are not in use.

These compressors feature the world-renowned Unicla 10-cylinder swashplate design that delivers extremely quiet and smooth operation with unbeatable volumetric efficiency through all revolution ranges – especially at low rpm – in either clockwise or counterclockwise direction.

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 UXF and UMF model 300 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.

330 Series Performance - R134a refrigerant

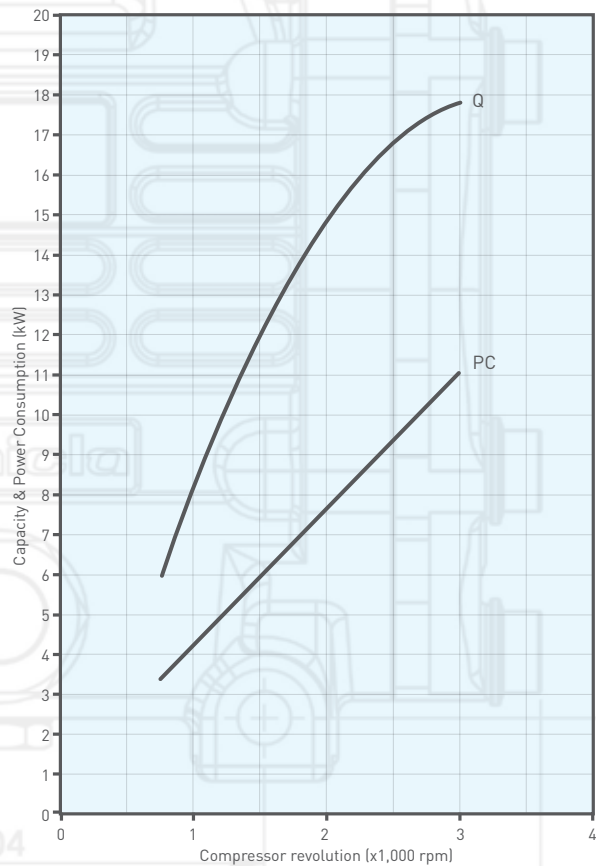


*Based on 9°C suction vapour temperature and 5°C subcooling.

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

380 Series Performance - R134a refrigerant



*Based on 9°C suction vapour temperature and 5°C subcooling.

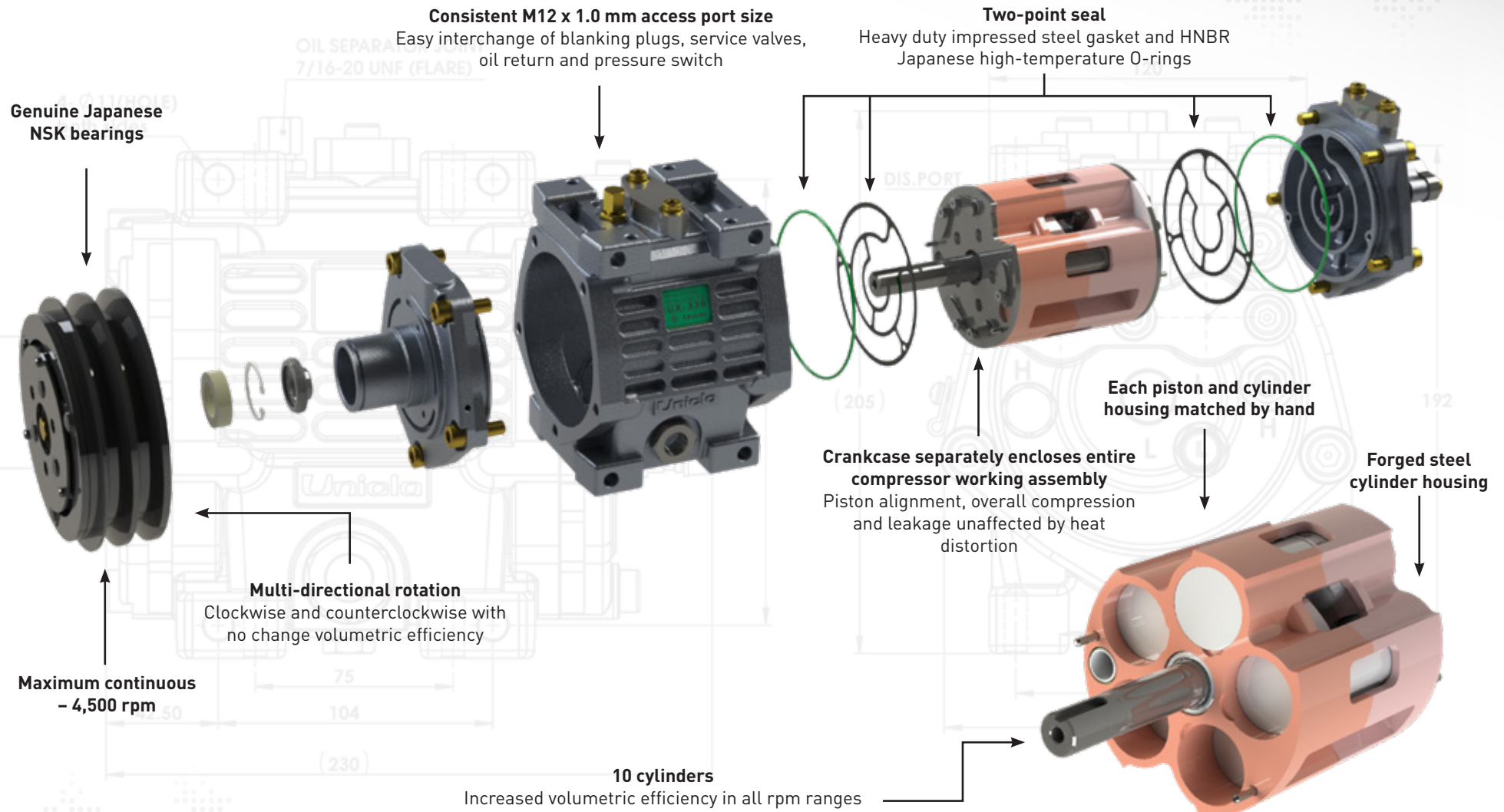
Q - Cooling capacity
PC - Power Consumption

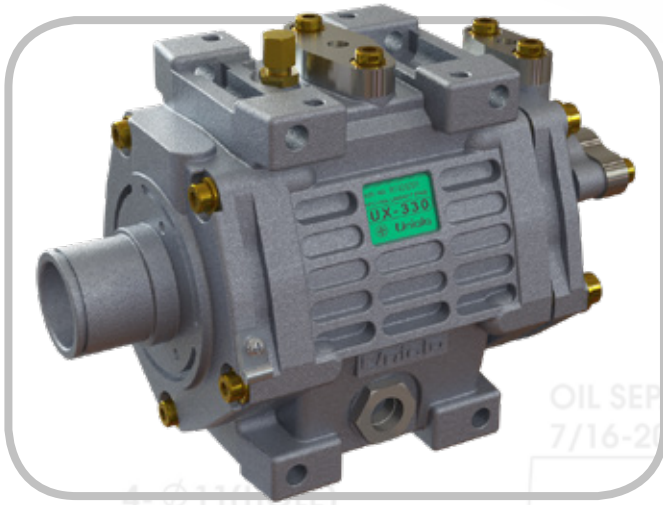
Conditions*	
Discharge pressure	15.2 bar
Condensing temperature	58°C
Suction pressure	1.82 bar
Evaporating temperature	-1°C



Unicla

Advantages 300 Series Compressors





Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **10-14 kW**
- Displacement: **330 cc/rev**
- Maximum continuous: **4500 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

Suited to all mounting brackets made for direct mount (bolt-through) compressors with bolt holes 104 mm apart, including four M10 x 1.5 mm threaded holes top and bottom 75 mm apart.

Hose ports

Porting for horizontal or vertical hose connections are standard, achieved by heavy duty blanking plates installed on outlets that are not in use. A range of standard hose port manifolds is available. Please see *Clutch and hose port options* on page 12.

Service valves

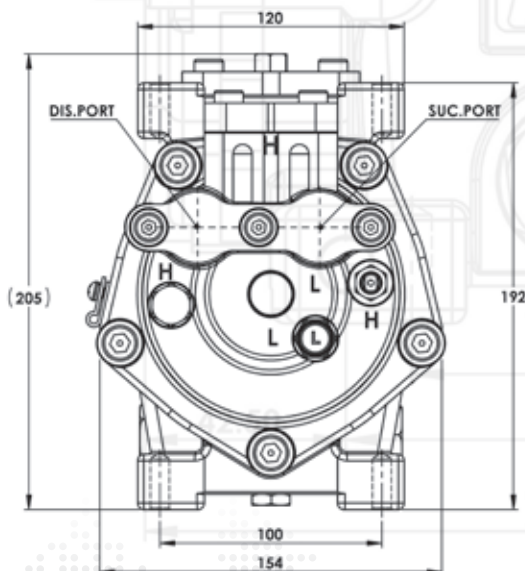
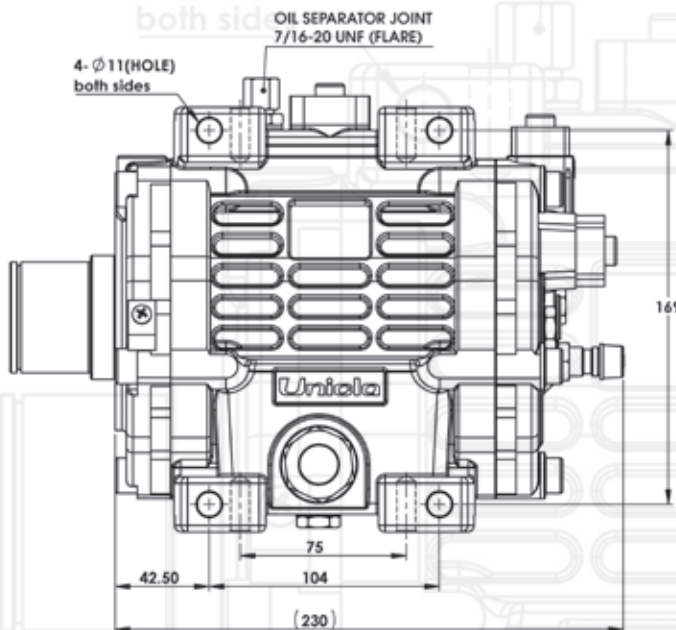
A low-side service valve is fitted to the rear cap, including a high-pressure relief valve.

Oil return

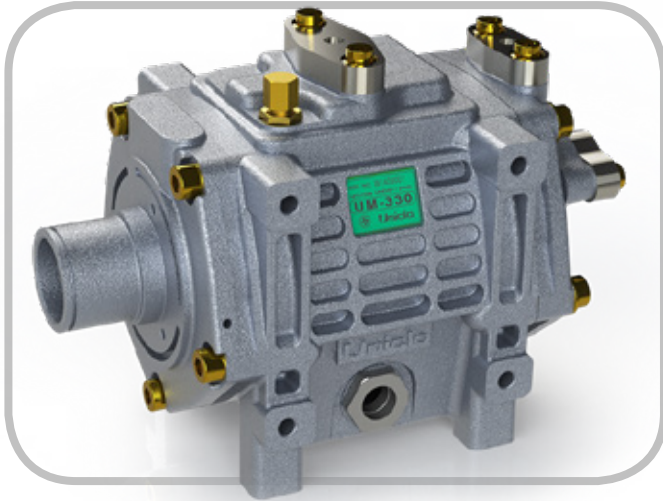
An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is fitted on top of the compressor. It has a unique flow design suited to the Unicla oil separator (Part No. OS000030) and is interchangeable with the low-side service valve.

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.



R134a refrigerant		
Compressor	Oil	Mounting
UX330	PAG56 or POE68 (600 ml)	Direct (all sides)
R404a R452a refrigerant		
Compressor	Oil	Mounting
UXF330	POE32 (600 ml)	Direct (all sides)



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **10-14 kW**
- Displacement: **330 cc/rev**
- Maximum continuous: **4500 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 Multi Direct Mounting system on UM models provides a total of 12 mounting points (four on the left, right and bottom sides) enabling direct compatibility with TM31 and QP31 compressors. Each mounting point has an M10 x 1.5 mm threaded hole, providing excellent flexibility in engine mounting and bracket design.

Hose ports

Porting for horizontal or vertical hose connections are standard, achieved by heavy duty blanking plates installed on outlets that are not in use. A range of standard hose port manifolds is available. Please see *Clutch and hose port options* on page 12.

Service valves

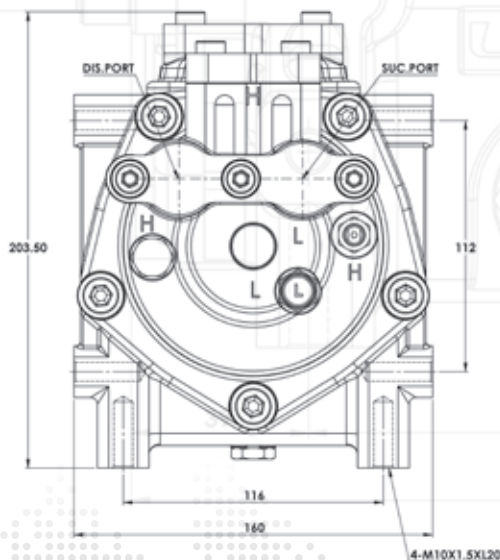
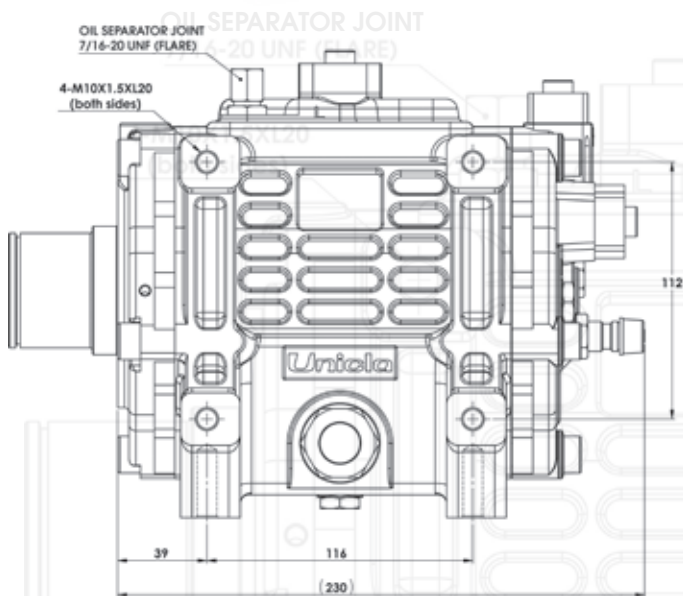
A low-side service valve is fitted to the rear cap, including a high-pressure relief valve.

Oil return

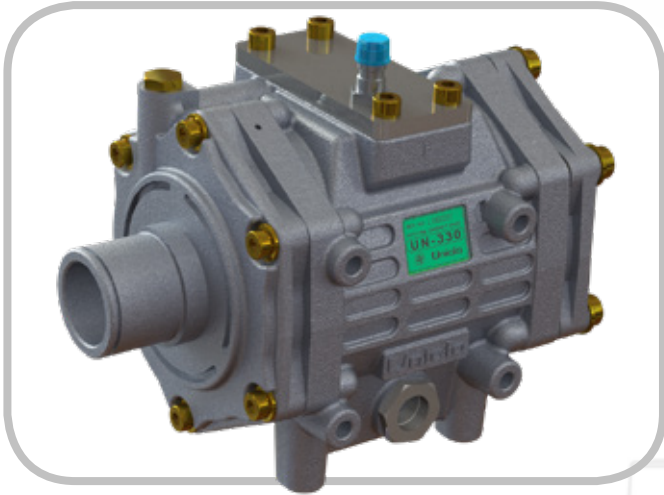
An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is fitted on top of the compressor. It has a unique flow design suited to the Unicla oil separator (Part No. OS000030) and is interchangeable with the low-side service valve.

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.



R134a refrigerant		
Compressor	Oil	Mounting
UM330	PAG56 or POE68 (600 ml)	TM/QP31 compatible
R404a R452a refrigerant		
Compressor	Oil	Mounting
UMF330	POE32 (600 ml)	TM/QP31 compatible



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **10-14 kW**
- Displacement: **330 cc/rev**
- Maximum continuous: **4500 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 Multi Direct Mounting system on UN models provides a total of eight mounting points (four on both the left and right sides), enabling direct compatibility with Denso 10P30B compressors. Mounting points on each side of the compressor are 94 mm and 81 mm apart.

Hose ports

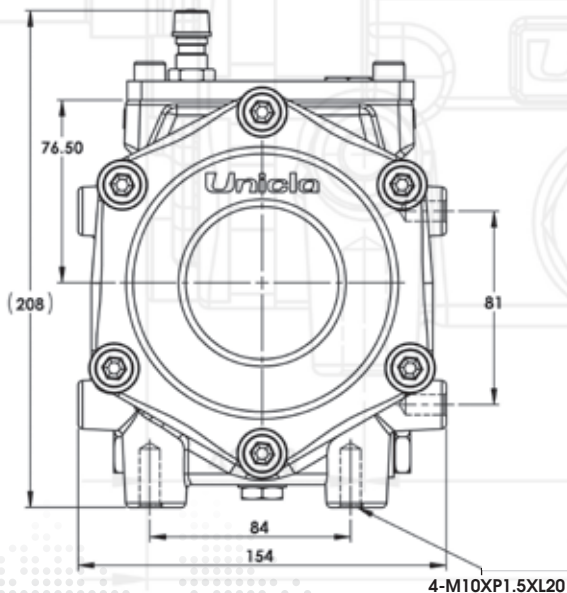
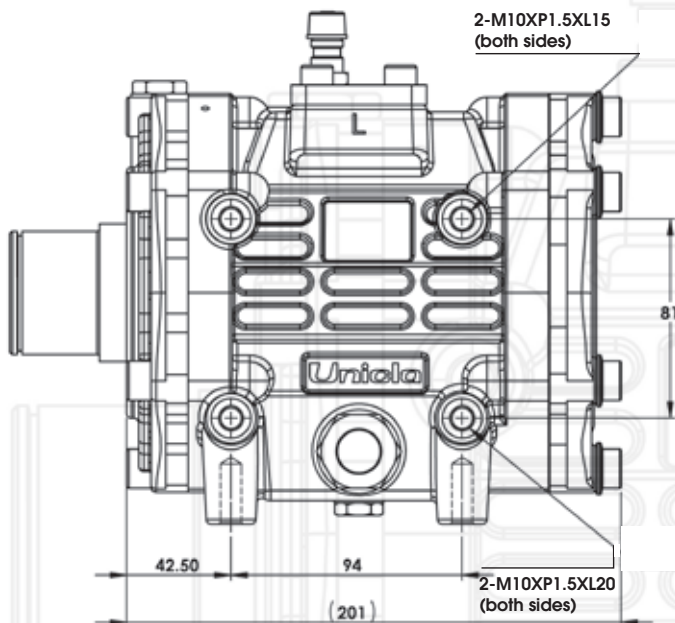
A single piece manifold is available. Please see *Clutch and hose port options* on page 12.

Service valves

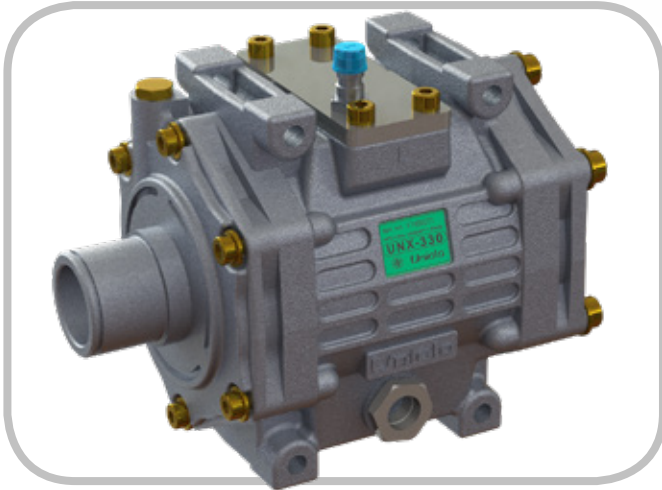
A low-side service valve is fitted to the top.

Oil return and other ports

An oil return port is not fitted.



R134a refrigerant		
Compressor	Oil	Mounting
UN330	PAG56 or POE68 (600 ml)	Denso 10P30B compatible



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **10-14 kW**
- Displacement: **330 cc/rev**
- Maximum continuous: **4500 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 direct mounting system (bolt-through) on the UNX provides a total of eight mounting points (four on both the left and right sides), enabling direct compatibility with Denso 10P30C compressors. Mounting points on each side of the compressor are 104 mm and 169 mm apart.

Hose ports

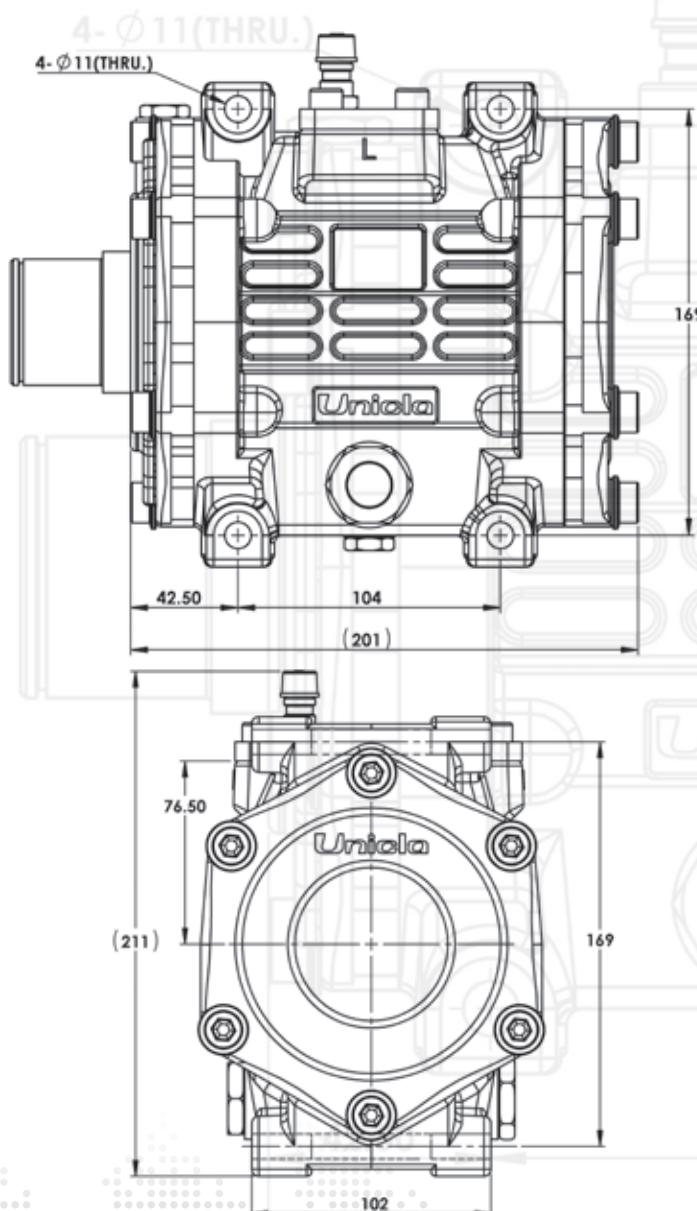
A single-piece manifold is available. Please see *Clutch and hose port options* on page 12.

Service valves

A low-side service valve is fitted to the top.

Oil return and other ports

An oil return port is not fitted.



R134a refrigerant		
Compressor	Oil	Mounting
UNX330	PAG56 or POE68 (600 ml)	Denso 10P30C compatible



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **12-16 kW** and can be fitted into the same position as a Unicla UX330 or UXF330
- Displacement: **380 cc/rev**
- Maximum continuous: **4500 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

Suited to all mounting brackets made for direct mount (bolt-through) compressors with bolt holes 104 mm apart, including four M10 x 1.5 mm threaded holes top and bottom 75 mm apart.

Hose ports

Porting for horizontal or vertical hose connections are standard, achieved by heavy duty blanking plates installed on outlets that are not in use. A range of standard hose port manifolds is available. Please see *Clutch and hose port options* on page 12.

Service valves

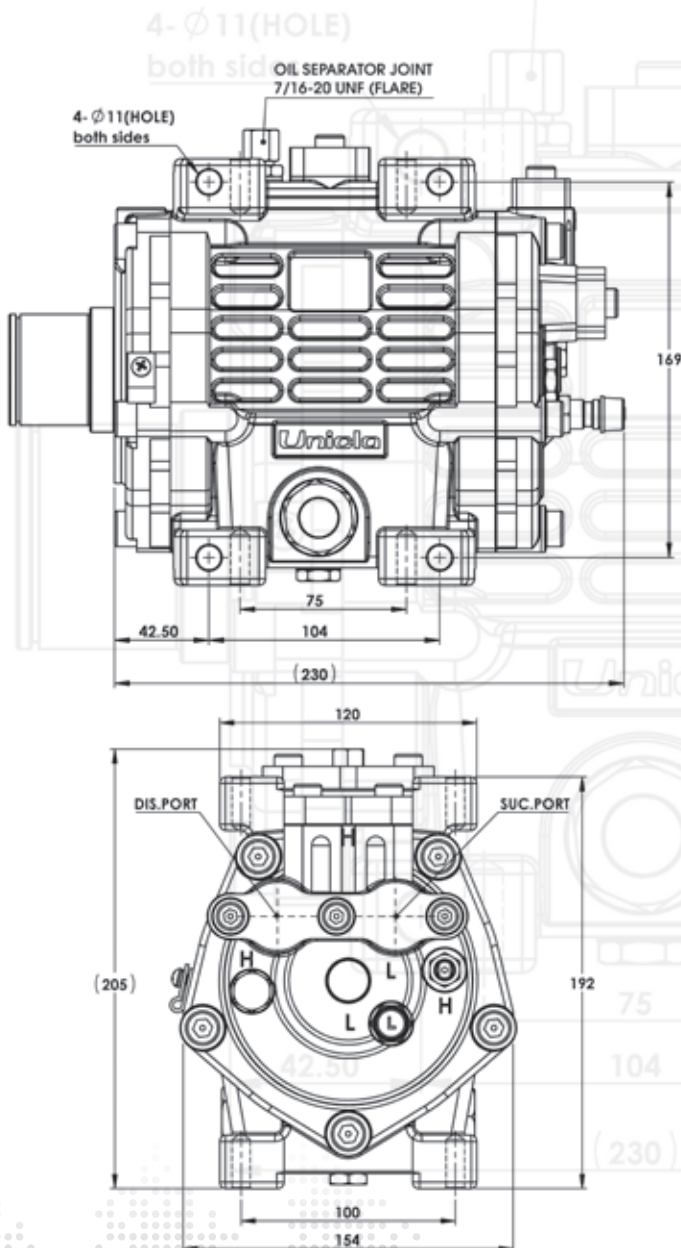
A low-side service valve is fitted to the rear cap, including a high-pressure relief valve.

Oil return

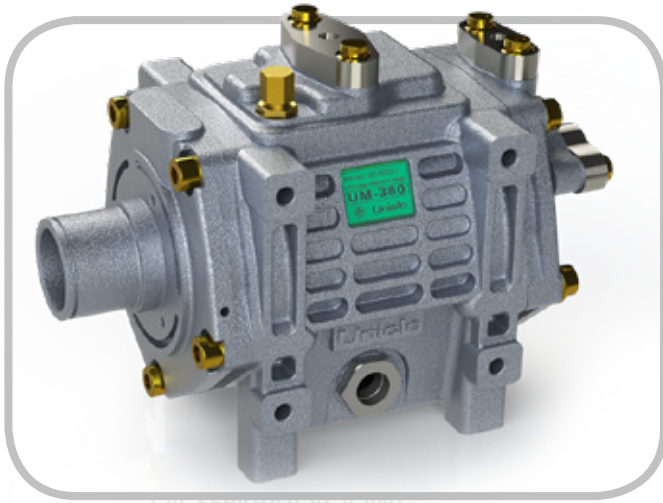
An oil return fitting – 7/16-20 UNF male flare (Part No. 42203-000160) – is fitted on top of the compressor. It has a unique flow design suited to the Unicla oil separator (Part No. OS000030) and is interchangeable with the low-side service valve.

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.



R134a refrigerant		
Compressor	Oil	Mounting
UX380	PAG56 or POE68 (600 ml)	Direct (all sides)
R404a R452a refrigerant		
Compressor	Oil	Mounting
UXF380	POE32 (600 ml)	Direct (all sides)



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **12-16 kW** and can be fitted into the same position as a Unicla UM330 or UMF330
- Displacement: **380 cc/rev**
- Maximum continuous: **4500 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 Multi Direct Mounting system on UM models provides a total of 12 mounting points (four on the left, right and bottom sides) enabling direct compatibility with TM31 and QP31 compressors. Each mounting point has an M10 x 1.5 mm threaded hole, providing excellent flexibility in engine mounting and bracket design.

Hose ports

Porting for horizontal or vertical hose connections are standard, achieved by heavy duty blanking plates installed on outlets that are not in use. A range of standard hose port manifolds is available. Please see *Clutch and hose port options* on page 12.

Service valves

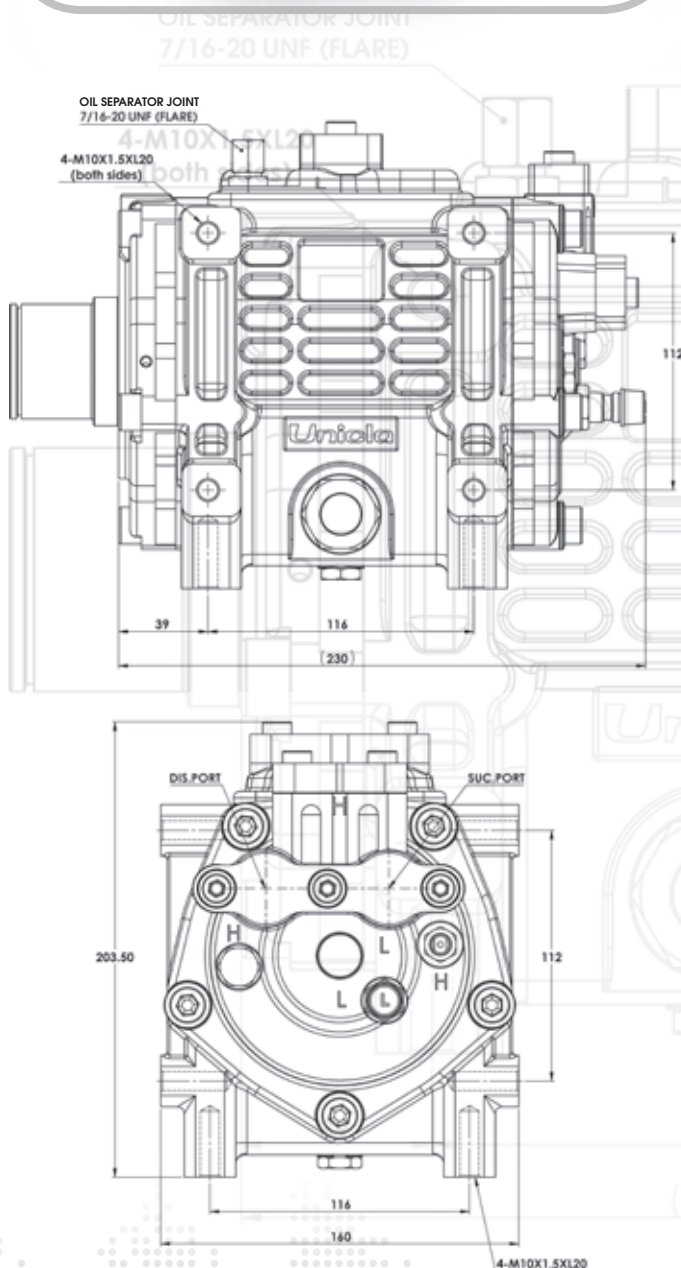
A low-side service valve is fitted to the rear cap, including a high-pressure relief valve.

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. OS000030) 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.

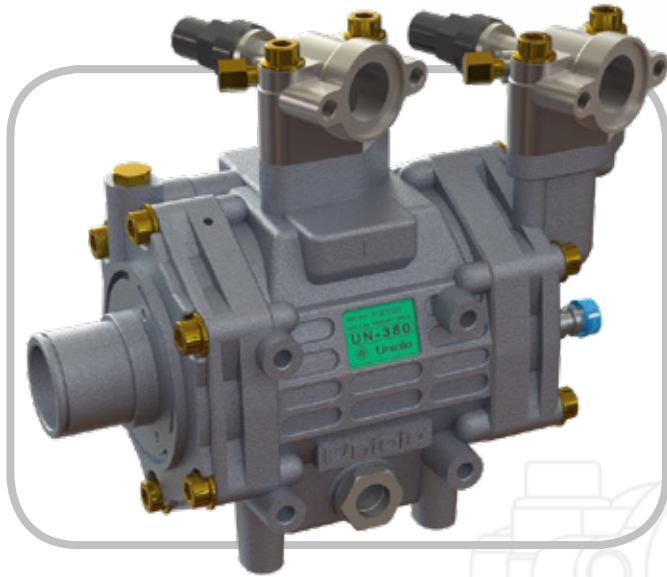


R134a refrigerant		
Compressor	Oil	Mounting
UM380	PAG56 or POE68 (600 ml)	TM/QP31 compatible
R404a R452a refrigerant		
Compressor	Oil	Mounting
UMF380	POE32 (600 ml)	TM/QP31 compatible



Unicla

UN380



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial and bus applications with a system capacity requirement of **12-16 kW**
- Displacement: **380 cc/rev**
- Maximum continuous: **4500 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 Multi Direct Mounting system on UN models provides a total of eight mounting points (four on both the left and right sides), enabling direct compatibility with Denso 10P30B compressors. Mounting points on each side of the compressor are 94 mm and 81 mm apart.

Hose ports

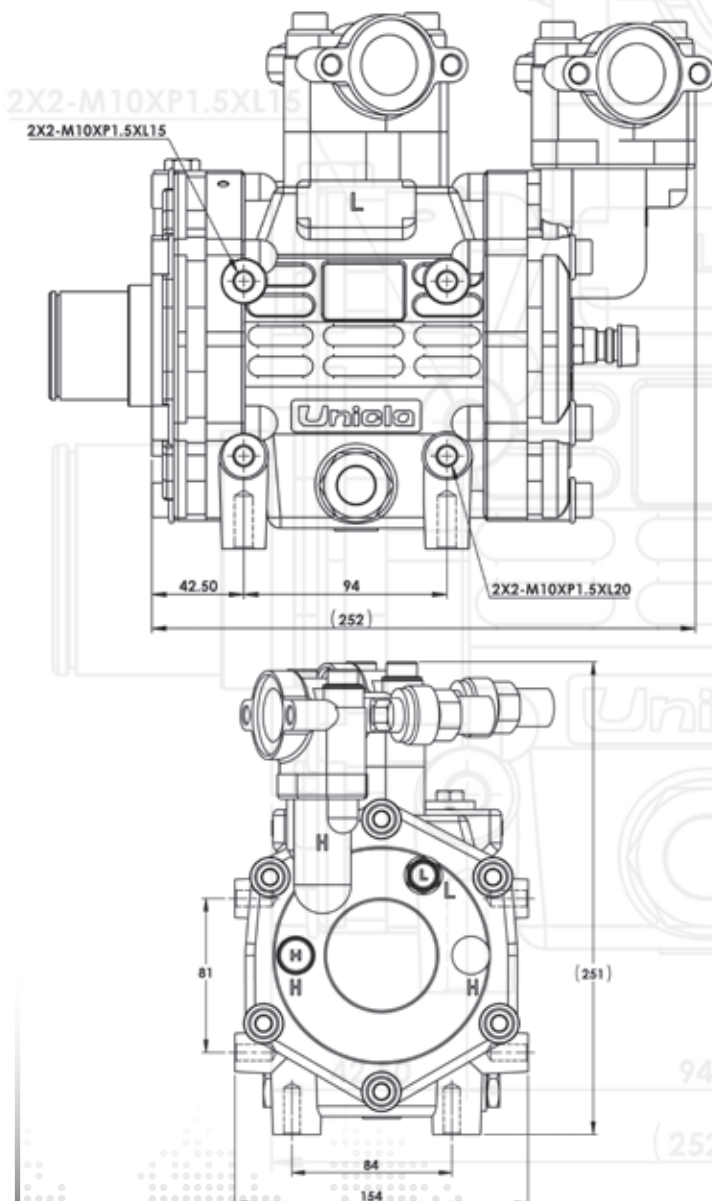
Both ports are fitted with a shut-off manifold assembly with back seating capability via stem valves.

Service valves

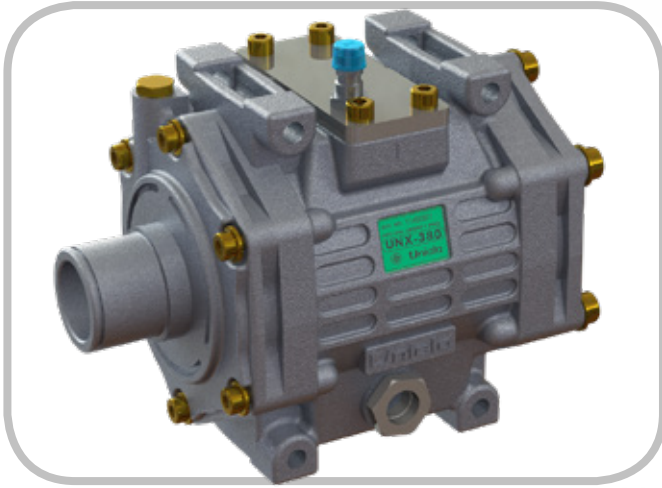
Low- and high-side service valves are fitted to the rear cap.

Oil return and other ports

An oil return port is not fitted.



R134a refrigerant		
Compressor	Oil	Mounting
UN380	PAG56 or POE68 (600 ml)	Denso 10P30B compatible



Features

- Unicla 10-cylinder swashplate
- Suitable for larger commercial applications with a system capacity requirement of **12-16 kW**
- Displacement: **380 cc/rev**
- Maximum continuous: **4500 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 direct mounting system (bolt-through) on the UNX provides a total of eight mounting points (four on both the left and right sides), enabling direct compatibility with Denso 10P30C compressors. Mounting points on each side of the compressor are 104 mm and 169 mm apart.

Hose ports

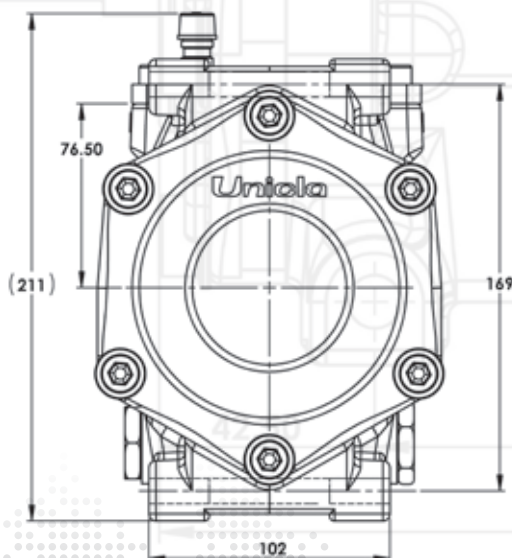
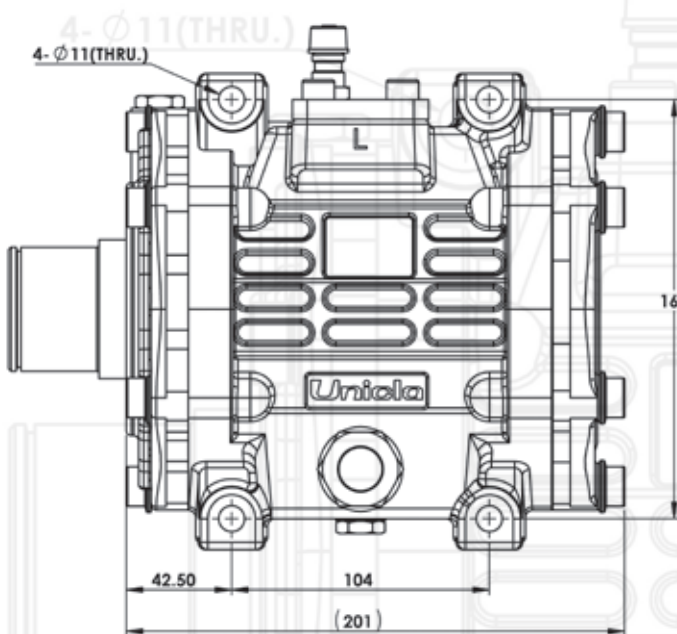
A single-piece manifold is available. Please see *Clutch and hose port options* on page 12.

Service valves

A low-side service valve is fitted to the top.

Oil return and other ports

An oil return port is not fitted.



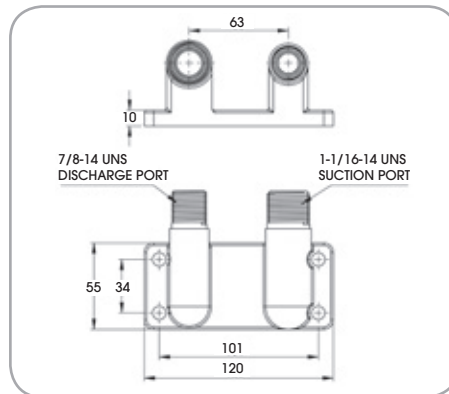
R134a refrigerant		
Compressor	Oil	Mounting
UNX380	PAG56 or POE68 (600 ml)	Denso 10P30C compatible



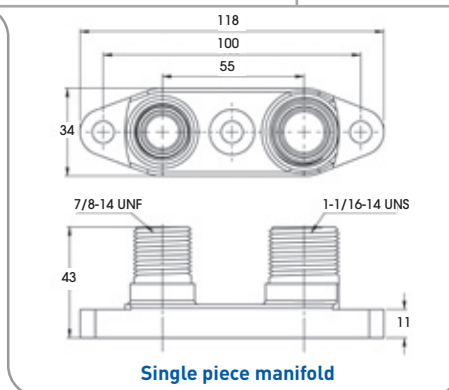
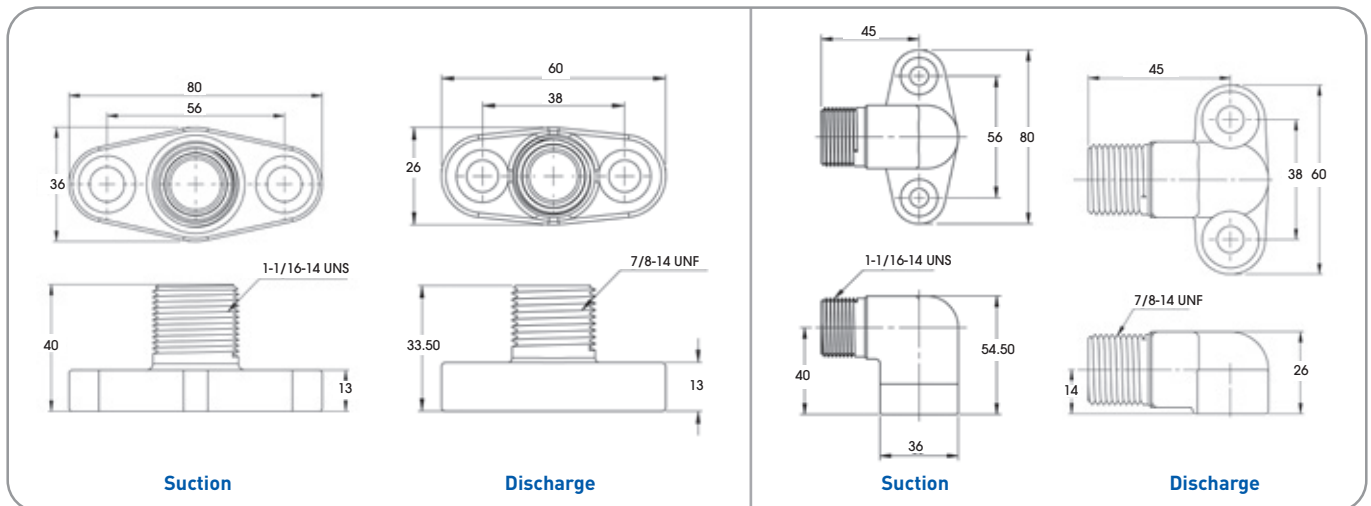
Clutches available for Unicla 330-380 Series Compressors

330-380 Series							
Type	158	168	178	210	12V	24V	HDC
AA-Groove		✓			✓	✓	
B-Groove							
BB-Groove		✓	✓	✓	✓	✓	✓
M-Groove	✓						
6-Groove							
8-Groove		✓		✓			✓

Single piece hose port manifold available for UN330, UNX330, UN380 and UNX380



Hose port manifolds available for UM330, UX330, UM380 and UX380





HEAD OFFICE

Unicla International Limited

Unit 1109, 11/F, Manhattan Centre, 8 Kwai
Cheong Road,
Kwai Chung, N.T., Hong Kong

PHONE: +852 2422 0180

FAX: +852 2422 0680

EMAIL: sales@unicla.hk

www.unicla.hk

Unicla Australia

14 Motorway Circuit, Ormeau,
Queensland 4208 Australia

PHONE: +61 7 5549 4033

FAX: +61 7 5549 4044

EMAIL: sales@unicla.hk

www.unicla.hk