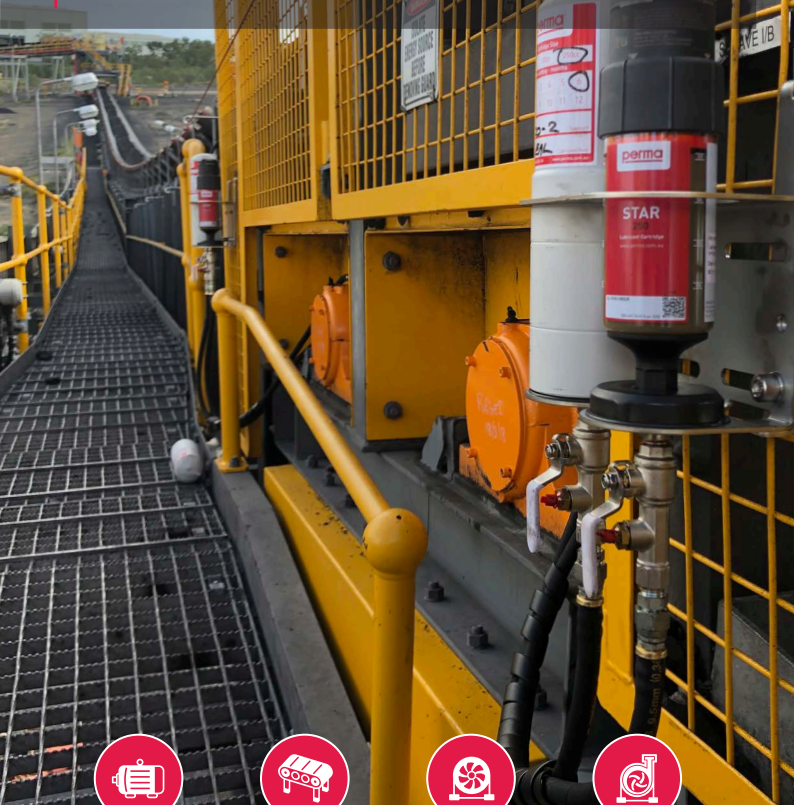


perma STAR VARIO Installation Kits

Pocket Guide



The Expert in Lubrication Solutions

perma

Remote mounting guide



- Locate lubricators where they can be safely and easily accessed while equipment is operating.
- Select stainless steel brackets which can be easily removed if required for maintenance access and include manual purge kits to provide an efficient option for supplementary greasing.
- Use 3/8" internal diameter grease line and run lines under or around cages. The maximum allowable grease line length is 5 meters for the perma STAR VARIO.



Questions for deciding between remote and direct mounting	Answers
Is it necessary to remove protective guards or safety cages to access the lubrication point?	Yes – remote mount No – direct mount
Is it difficult or unsafe to access the lubrication point while equipment is running?	Yes – remote mount No – direct mount
Is the lubrication point subject to severe vibration or high temperatures which may damage the lubricator?	Yes – remote mount No – direct mount
Is it necessary to get special permits to access lubrication points such as those in confined spaces or located at heights?	Yes – remote mount No – direct mount
Is the lubrication point exposed to excessive amounts of water, process materials or impact from solid material?	Yes – remote mount No – direct mount

Kit installation

guide

Remote installation kits are simple to install. The minimum tools required to complete a typical installation include: 2 x shifters, 5/16" Allen key, hose cutters and grease gun.

The following installation tips should be observed:

1. Use a grease gun to test that lubrication points can receive grease freely. Use this opportunity to pre-grease the points if practical to do so. Do not use a powered grease gun because it will not be possible to detect high resistance to grease flow.
2. Identify a suitable bracket mounting position which is safe to access for lubricator servicing:
 - > Ensure that there is space above the lubricators for covers to be removed.
 - > Avoid interference with inspection hatches, frequently removed guards and emergency stop cords.
3. Plan grease line routes carefully:
 - > Run grease lines under guards rather than across.
 - > Run grease lines under, over or around cages. Not through.
 - > Secure and protect grease lines using cable ties and spiral wrap.
4. Apply grease to hose end barbs for easy fitting. Cold hose may need to be warmed. Push the hose on using two hands with a firm downwards motion.
5. Fill grease lines with fresh grease.

6. Where the threat of corrosion is high, use Denso wrap to protect hose ends.
7. Use a thread locking and sealing product to ensure that fittings are secure and to prevent oil weep.



Apply grease to hose end tails before attempting to push on hose



Apply thread sealant to fittings



Use protective wrap to prevent the corrosion of hose end fittings in highly corrosive environments



Apply spiral wrap to hoses to protect them from rubbing and to reduce catch hazards

Kit part numbers

explanation

Perma supplies a comprehensive range of installation kits to enable simple and robust installations of perma STAR VARIO lubricators. The brackets are made from stainless steel and are attached to beam sections, square cage mesh or horizontal rails using simple hand tools.

Part numbers for remote mount kits are explained below. The first 4 digits indicate the part number, the number of lubricators held by the kit assembly and the attachment method. Additional suffixes are used to indicate design variations.

There are four methods of attachment. The three most common are 30mm beam clamps, 65mm beam clamps and cage hooks. Some brackets are designed for rail attachment using U-bolts.



BC30
30mm beam
clamp



BC65
65mm beam
clamp



CH-ARMS
Cage hook arm pair

1st Four Digits of Part Numbers

Digit Reference	Meaning
1st digit	Denotes part type; K = Kit
2nd digit	Denotes the number of lubricator points
3rd and 4th digits	Denotes the attachment type; 30 = 30mm beam clamps, 65 = 65mm beam clamps, CH = cage hangers, RR = round rail U-bolts

Suffixes of Part Numbers

Suffix (in order of use)	Meaning of Suffix
C	Bracket is heavy duty C-Section design
J	Bracket points joined by manifold
X	Bracket is for 500cm ³ lubricator

Kit part number example – K2CHC



Standard Duty Beam Installation Kits

STANDARD DUTY BEAM installation kits include stainless steel brackets and beam clamps.

Lubricators are not included in kits.



K130 (with 30mm beam clamps)
K165 (with 65mm beam clamps)



K230 (with 30mm beam clamps)
K265 (with 65mm beam clamps)



K330 (with 30mm beam clamps)
K365 (with 65mm beam clamps)

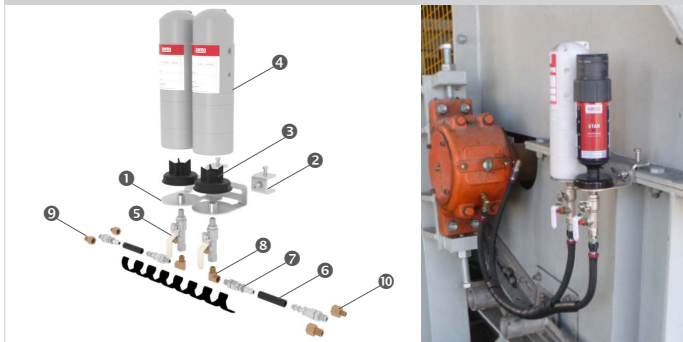


K430 (with 30mm beam clamps)
K465 (with 65mm beam clamps)



The range of Standard Duty kits with beam clamps includes options for 1, 2, 3 or 4 points. Beam clamp options include 30mm and 65mm sizes, as indicated by the 3rd and 4th digits of the product part number – **30** for 30mm clamps and **65** for 65mm clamps.

Example installation kit contents – K230



Bill of Materials

1	1 x 2 point standard duty bracket	6	4m of 3/8" ID grease line
2	2 x 30mm S/S beam clamps	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF -1/4" BSPM extension

Heavy Duty Beam Installation Kits

HEAVY DUTY BEAM installation kits include stainless steel C-section brackets designed for high contamination areas which can be attached using beam clamps.

Lubricators are not included in kits.



K130C (with 30mm beam clamps)
K165C (with 65mm beam clamps)



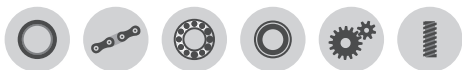
K230C (with 30mm beam clamps)
K265C (with 65mm beam clamps)



K330C (with 30mm beam clamps)
K365C (with 65mm beam clamps)

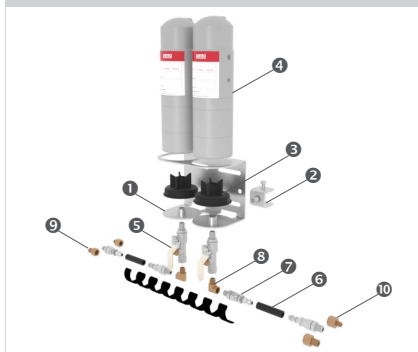


K430C (with 30mm beam clamps)
K465C (with 65mm beam clamps)



The range of Heavy Duty kits with beam clamps includes options for 1, 2, 3 or 4 points. Beam clamp options include 30mm and 65mm sizes, as indicated by the 3rd and 4th digits of the product part number – **30** for 30mm clamps and **65** for 65mm clamps.

Example Installation Kit Contents – K230C



Bill of Materials

1	1 x 2 point heavy duty bracket	6	4m of 3/8" ID grease line
2	2 x 30mm S/S beam clamps	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF-1/4" BSPM extension

Standard Duty Cage Installation Kits

STANDARD DUTY CAGE installation kits are designed for quick attachment to square cage mesh down to 25mm x 25mm.

Lubricators are not included in kits.



K1CH



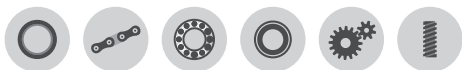
K2CH



K3CH



K4CH



The range of Standard Duty installation kits with cage hooks are suited to square cage down to a mesh size of 25 x 25mm. Installation kits are available for 1, 2, 3 or 4 points as summarised below. **CH** as the 3rd and 4th digits of the product part number indicates the inclusion of cage hook.

Example installation kit contents – K2CH



Bill of Materials

1	1 x 2 point standard duty cage bracket	6	4 x Female swivel hose ends
2	2 x Lubricator support flanges	7	2 x 90 degree elbows
3	2 x full length covers	8	2 x 1/4" BSPF-1/8" BSPM reducers
4	2 x Manual purge kits	9	2 x 1/4" BSPF -1/4" BSPM extension
5	4m of 3/8" ID grease line		

Heavy Duty Cage Installation Kits

HEAVY DUTY CAGE installation kits include stainless steel C-section brackets designed for high contamination areas which can be attached using cage hooks.

Lubricators are not included in kits.



K1CHC



K2CHC



K3CHC

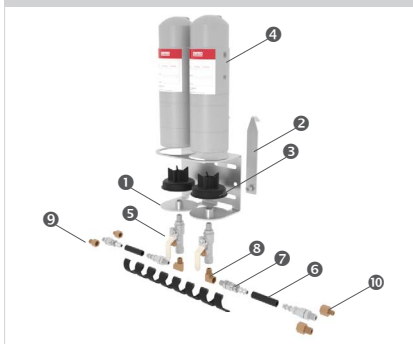


K4CHC



The range of Heavy Duty installation kits with cage hooks are suited to square cage down to a mesh size of 25 x 25mm. Installation kits are available for 1, 2, 3 or 4 points as summarised below. **CH** as the 3rd and 4th digits of the product part number indicates the inclusion of cage hook.

Example Installation Kit Contents – K2CHC



Bill of Materials

1	1 x 2 point heavy duty bracket	6	4m of 3/8" ID grease line
2	1 x cage hook arm set	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF -1/4" BSPM extension

Rail Installation Kits

RAIL installation kits incorporate rail mount brackets suited to round rails ranging from 30mm to 50mm outside diameter.

Lubricators are not included in kits.



K1RR



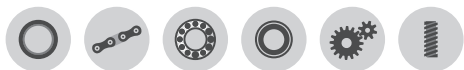
K2RR



K3RR

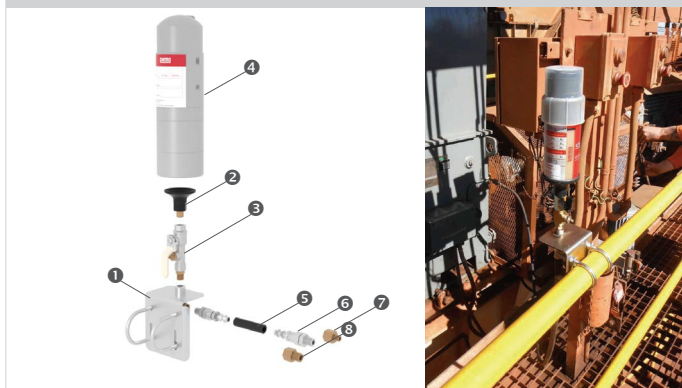


K4RR



The range of rail mount kits includes options for 1, 2, 3 or 4 points. Rail mount brackets are secured using u-bolts which are suited to round rails with outer diameters between 30 and 50mm. The rail mount design is indicated by **RR** as the 3rd and 4th digits of the product part number.

Example Installation Kit Contents – K1RR



Bill of Materials

1	1 x 1 point rail bracket	5	2m of 3/8" ID grease line
2	1 x lubricator support flanges	6	2 x female swivel hose ends
3	1 x manual purge kits	7	1 x 1/4" BSPF-1/8" BSPM reducers
4	1 x full length cover	8	1 x 1/4" BSPF -1/4" BSPM extension

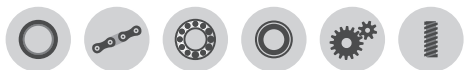
Manifold

Installation Kits

MANIFOLD installation kits are available in a broad range of configurations. They are used when the required lubrication rate is higher than what can be achieved with a single lubricator or where there is a need to extend or rationalise the service period for lubricators.

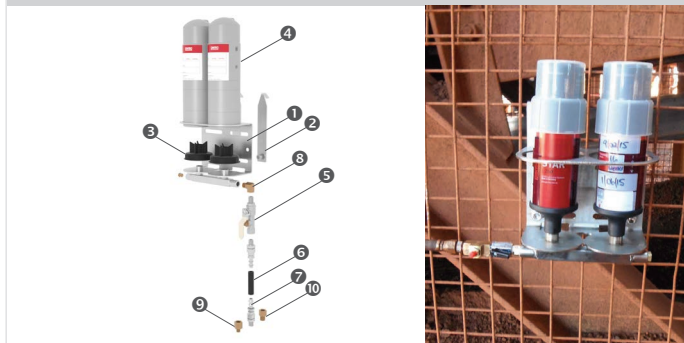
Lubricators are not included in kits.





Installation kits which incorporate two and three point manifolds are available with combinations of standard duty and heavy duty bracket designs, plus the option of beam or cage mount.

Example Installation Kit Contents – K2CHCJ



Bill of Materials

1	1 x 2 point manifold bracket	6	4m of 3/8" ID grease line
2	1 x cage hook arm set	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF -1/4" BSPM ext.

Standard Duty Beam - 500cm³ Installation Kits

STANDARD DUTY BEAM installation kits for 500cm³ lubricators include stainless steel brackets and beam clamps.

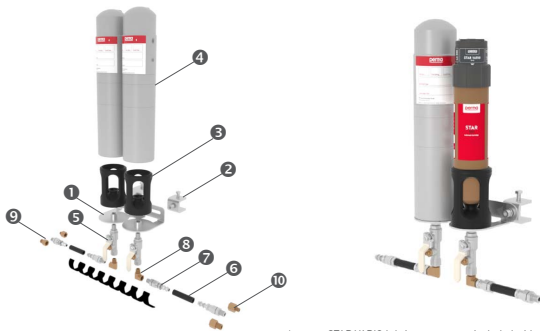
Lubricators are not included in kits.





The range of Standard Duty kits with beam clamps includes options for 1, 2, 3 or 4 points. Beam clamp options include 30mm and 65mm sizes, as indicated by the 3rd and 4th digits of the product part number – **30** for 30mm clamps and **65** for 65mm clamps.

Example installation kit contents – K230X



* perma STAR VARIO lubricators are not included with installation kits

Bill of Materials

1	1 x 2 point standard duty bracket	6	4m of 3/8" ID grease line
2	2 x 30mm S/S beam clamps	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF -1/4" BSPM extension

Heavy Duty Beam - 500cm³ Installation Kits

HEAVY DUTY BEAM installation kits for 500cm³ lubricators include stainless steel C-section brackets designed for high contamination areas which can be attached using beam clamps.

Lubricators are not included in kits.



K130CX (with 30mm beam clamps)
K165CX (with 65mm beam clamps)



K230CX (with 30mm beam clamps)
K265CX (with 65mm beam clamps)



K330CX (with 30mm beam clamps)
K365CX (with 65mm beam clamps)

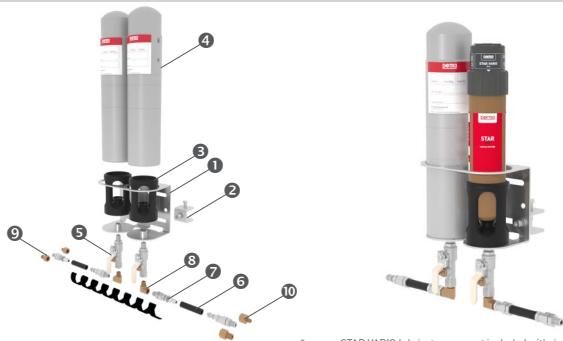


K430CX (with 30mm beam clamps)
K465CX (with 65mm beam clamps)



The range of Heavy Duty kits with beam clamps includes options for 1, 2, 3 or 4 points. Beam clamp options include 30mm and 65mm sizes, as indicated by the 3rd and 4th digits of the product part number – **30** for 30mm clamps and **65** for 65mm clamps.

Example Installation Kit Contents – K230CX



* perma STAR VARIO lubricants are not included with installation kits

Bill of Materials

1	1 x 2 point heavy duty bracket	6	4m of 3/8" ID grease line
2	2 x 30mm S/S beam clamps	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF-1/4" BSPM extension

Standard Duty Cage - 500cm³ Installation Kits

STANDARD DUTY CAGE installation kits for 500cm³ lubricators are designed for quick attachment to square cage mesh down to 25mm x 25mm.

Lubricators are not included in kits.



K1CHX



K2CHX



K3CHX

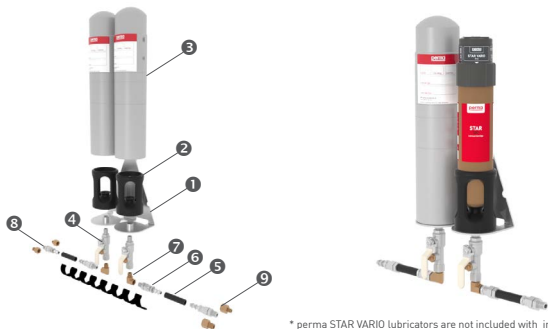


K4CHX



The range of Standard Duty installation kits with cage hooks are suited to square cage down to a mesh size of 25 x 25mm. Installation kits are available for 1, 2, 3 or 4 points as summarised below. **CH** as the 3rd and 4th digits of the product part number indicates the inclusion of cage hook.

Example installation kit contents – K2CHX



* perma STAR VARIO lubricators are not included with installation kits

Bill of Materials

1	1 x 2 point standard duty cage bracket	6	4 x Female swivel hose ends
2	2 x Lubricator support flanges	7	2 x 90 degree elbows
3	2 x full length covers	8	2 x 1/4" BSPF-1/8" BSPM reducers
4	2 x Manual purge kits	9	2 x 1/4" BSPF -1/4" BSPM extension
5	4m of 3/8" ID grease line		

Heavy Duty Cage - 500cm³ Installation Kits

HEAVY DUTY CAGE installation kits for 500cm³ lubricators include stainless steel C-section brackets designed for high contamination areas which can be attached using cage hooks.

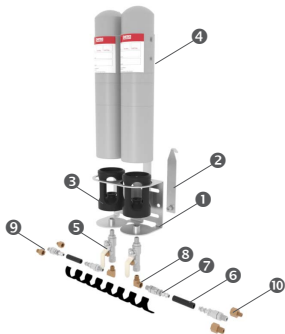
Lubricators are not included in kits.





The range of Heavy Duty installation kits with cage hooks are suited to square cage down to a mesh size of 25 x 25mm. Installation kits are available for 1, 2, 3 or 4 points as summarised below. **CH** as the 3rd and 4th digits of the product part number indicates the inclusion of cage hook.

Example Installation Kit Contents – K2CHCX



* perma STAR VARIO lubricators are not included with installation kits

Bill of Materials

1	1 x 2 point heavy duty bracket	6	4m of 3/8" ID grease line
2	1 x cage hook arm set	7	4 x female swivel hose ends
3	2 x lubricator support flanges	8	2 x 90 degree elbows
4	2 x full length covers	9	2 x 1/4" BSPF-1/8" BSPM reducers
5	2 x manual purge kits	10	2 x 1/4" BSPF-1/4" BSPM extension



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