

HYDRAULIC STEERING 20

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HYDRAULIC STEERING INTRODUCTION & CROSS REFERENCE

Hydraulic Steering Systems

All the components of Ultraflex hydraulic steering systems are made specifically for the marine environment, using materials and working process which offer long life and safety for the most extreme conditions.

How The System Works

A hydraulic steering system consists of a helm pump, a cylinder tied to the rudder or to the outboard or sterndrive engine and the connecting nylon or copper tubing.

The helm unit consists of both a hydraulic pump and a valve assembly. The valve assembly prevents outgoing fluid from returning along the same line, isolates each steering station, locks the rudder and eliminates rudder "feedback" to the helm. The cylinders are double acting and may be balanced or unbalanced (in which case the rod extends through only one end of the cylinder).

Under normal operating conditions, a turn of the steering wheel will send the oil from the helm into one of the two connecting hydraulic lines. The oil will be pumped into one of the chambers and either extend or retract the cylinder rod, depending on the steering wheel rotation. The fluid going out from the other chamber of the cylinder is returned to the helm via the other hydraulic line.

Cross Reference

This Cross Reference chart has been drawn to facilitate a functional comparison among brands and should be used as general reference only. For further information, please contact our Technical Service Department.

Cylinders

Ultraflex	Teleflex
UC81-OBF	-
UC95-OBF	Baystar™ HC4645
UC128-OBF	Seastar™ HC5345
UC130-SVS	Seastar™ HC6345
UC68-OBS	-
UC132-OBS	Seastar™ HC5370/5328
UC69-I	Baystar™ HC4461-3
UC116-1	Seastar™ HC5312
UC168-I	Seastar™ HC5314
UC215-I	Seastar™ HC5319
UC293-I	-
UC378-I	-

Helm Pumps

Ultraflex	Teleflex
UP18	BayStar™ HH4311
UP20 F	BayStar™ HH4314
UP20 T	BayStar™ HH4315
UP25 F	Seastar™ 1.4 HH5269
UP25NV F	-
UP25 T	Seastar™ 1.4 HH6544
UP28 F	Seastar™ 1.7 HH5271
UP28 T	Seastar™ 1.7 HH6541
UP 28 R	Seastar™ 1.7 HH5261
UP33 F	Seastar™ 2.0 HH5273
UP33NV F	Seastar™ 2.0 HH5760
UP33 T	Seastar™ 2.0 HH6543
UP33 R	-
UP39 F	Seastar™ 2.4 HH5272
UP39 T	Seastar™ 2.4 HH6542
UP39 R	Seastar™ 2.4 HH5262
UP45 F	Seastar™ 3.0 HH5283
UP45 T	-
UP45 R	Seastar™ 3.0 HH5265
UP28 F-SVS	Seastar™ PRO - HH5779
UP28 T-SVS	Seastar™ PRO - HH6573
UP33 F-SVS	Seastar™ PRO - HH5770
UP33 T-SVS	Seastar™ PRO - HH6574
UP39 F-SVS	Seastar™ PRO - HH5772
UP39 T-SVS	Seastar™ PRO - HH6188

Suggestions And Warnings When Selecting A Hydraulic Steering System

The strength required to drive a boat equipped with a hydraulic steering system is inversely proportional to the number of turns of the wheel lock-to-lock. The wheel turns are determined by the ratio between cylinder volume, pump displacement. With the same type of cylinder installed on the engine, the less are the turns, the faster is the response but higher is the effort; more wheel turns, slower is the response and lower is the effort.

Other factors that can influence steering effort are:

- Vessel speed.
- Propeller selection.
- Sea conditions.
- Rudder dimension, or engine power.
- Hull type (displacement, planing, etc).
- Oil viscosity.

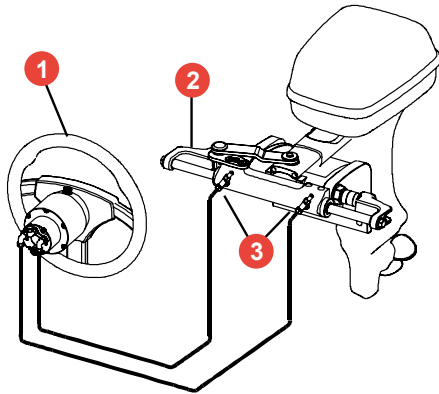
How To Measure Steering Wheel Turns

Divide the volume of the cylinder in cubic centimetres (cc) by the volume of the helm pump in cubic centimetres equals the number of turns lock to lock.

EXAMPLE: Cylinder Volume = 132cc $132 \div 25 = 5.28$ turn
 Helm Pump Volume = 25cc Round off to 5.3 turns

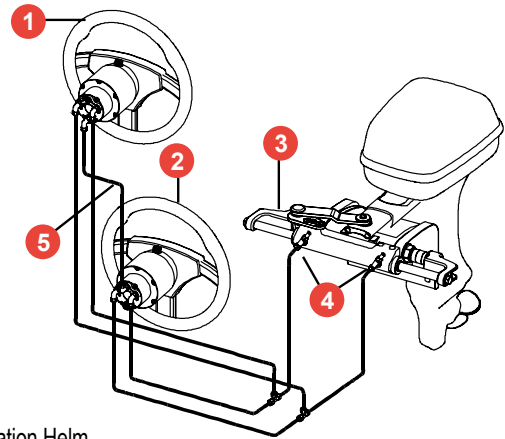
Note: When selecting the right helm pump for cylinder, please consult our technical service department.

Single Station / Single Cylinder



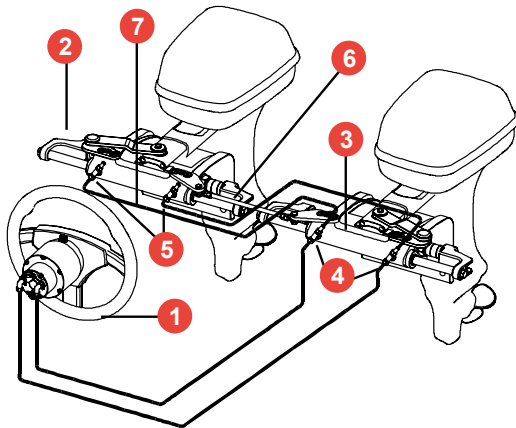
- 1. Helm
- 2. Starboard Cylinder
- 3. Bleed Valves

Dual Station / Single Cylinder:



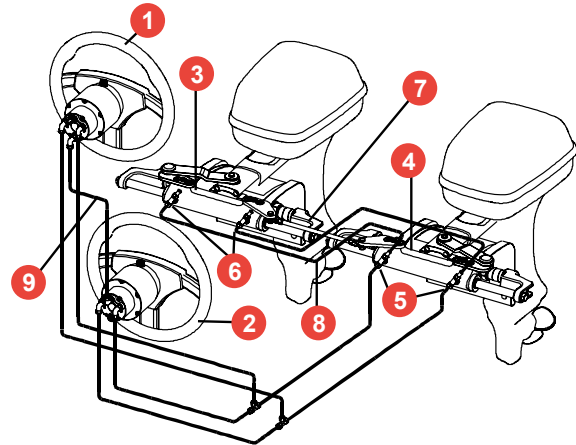
- 1. Upper Station Helm
- 2. Lower Station Helm
- 3. Starboard Cylinder
- 4. Bleed Valves
- 5. Kit OB-2S

Single Station / Dual Cylinder:



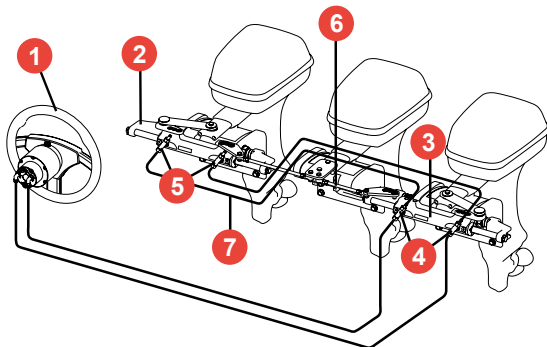
- 1. Helm
- 2. Starboard Cylinder
- 3. Port Cylinder
- 4. 'T' Fittings
- 5. Bleed Valves
- 6. Tie Bar
- 7. Kit OB-2C (Kit OB-2C-SVS for Silversteer)

Dual Station / Dual Cylinder:



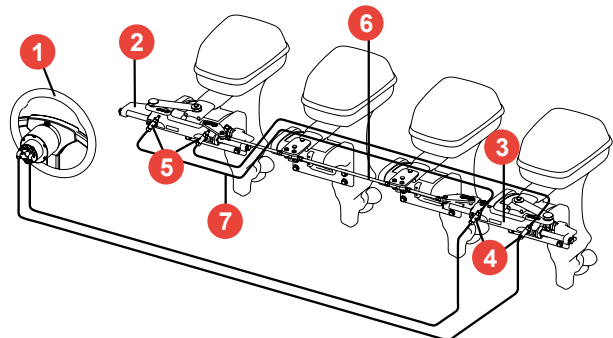
- 1. Upper Station Helm
- 2. Lower Station Helm
- 3. Starboard Cylinder
- 4. Port Cylinder
- 5. 'T' Fittings
- 6. Bleed Valves
- 7. Tie Bar
- 8. Kit OB-2C (Kit OB-2C-SVS for Silversteer)
- 9. Kit OB-2S

Single Station / Three Cylinders:



- 1. Helm
- 2. Starboard Cylinder
- 3. Port Cylinder
- 4. "T" Fittings
- 5. Bleed Valves
- 6. Tie Bar
- 7. Kit OB-2C (Kit OB-2C130-SVS For Silversteer™)

Single Station / Four Cylinders:



- 1. Helm
- 2. Starboard Cylinder
- 3. Port Cylinder
- 4. "T" Fittings
- 5. Bleed Valves
- 6. Tie Bar
- 7. Kit OB-2C (Kit OB-2C130-SVS For Silversteer™)

Ultraflex GOTECH 115HP Front Mount Hydraulic Steering Kit



Gotech steering kits are designed for outboard engines rated up to 115HP (refer to chart below for engine application guide). Depending on the applications on the outboard engine, the UC81-OBF can be installed port or starboard.

- This kit come complete with a helm pump, outboard front mount cylinder, hydraulic oil and premium hi-flex hoses.

KIT CONTAINS:

- 1x UC81-OBF Front Mount Outboard Cylinder.
- 1x UP18 Front Mount Helm Pump 18cc.
- 2x 1L Hydraulic Oil.
- 2x Hose kit with pre-assemble fitting at one end and brass connectors - 1/4" dia x 6m length (KIT OB-GT/M)

NOTE: Steering wheel not included, see the Steering Wheels category (Section 18).

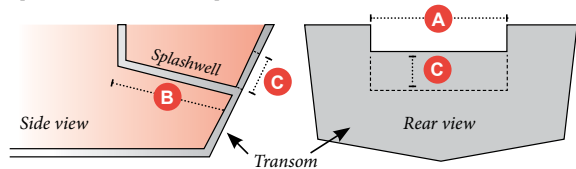


Up to 115hp - 4.5 wheel turns

Select Your Kit

Part No.	Cylinder Type
JPW18934	UC81-OBF/1 Cylinder

Splashwell Requirements



No. of Engines	A (mm)	B (mm)	C (mm)
1	590	152	152

Engine Application Guide

Power	Year
EVINRUDE	
E40-E50-E55-E60 2 Stroke	2004 - today
E75-E90 2 Stroke	2004 - today
E115 2T V4	1995 - today
HONDA	
BF40-50-60-75-90 4 Stroke	1995 - today
BF115D	1998 - 2009
BF115A	2009 - today
BF90 V-TEC 4 Stroke	2008 - today
JOHNSON	
BJ60-70 4 Stroke	2001 - 2007
BJ90-115 4 Stroke	2001 - 2007
J90-115 V4 2 Stroke	1995 - 2007
MERCURY MARINER	
50-75-90 2 Stroke	1990 - 2008
115 EFI 2 Stroke	1990 - 2007
75-90-115 Optimax 2 Stroke	2004 - today
40-50-60 EFI 4 Stroke	2004 - today
75-80-90 EFI 4 Stroke	2000 - today
100-115 EFI 4 Stroke	2007 - today
SUZUKI	
DF40-50-60-70-80-90 4 Stroke	1998 - today
DF100-115 4 Stroke *	1998 - 2008
DF100-115 4 Stroke (New Model)	2008 - today

Power	Year
TOHATSU NISSAN	
40-50-60-70-90 2 Stroke	2004 - today
75-115 2 Stroke	2004 - today
40-50TLDI 4 Stroke	2004 - today
70-90-115 TLDI 4 Stroke	2004 - today
SELVA	
40XS-50 Madeira 2 Stroke	1995 - today
40XS-50 Bull Shark 2 Stroke	1995 - today
40XS-60 Grey Shark 2 Stroke	1995 - today
40XS-70 Mako Shark 2 Stroke	1995 - today
40XS-60 St. Tropez 2 Stroke	1995 - today
80 Portofino/Tigershark 2 Stroke	1995 - today
25 Kingfish 4 Stroke	1995 - today
40 Aruana 4 Stroke	1995 - today
40XS-40XSR-50-60 Dorado EFI 4 Stroke	1995 - today
40XSR EFI Murena 4 Stroke	1995 - today
80XS-100-100XSR EFI Marlin 4 Stroke	2000 - today
115-115XSR EFI Tarpon 4 Stroke	2000 - today
115 EFI Narwhal 4 Stroke	2000 - today
YAMAHA	
60-70 2 Stroke	1984 - 2008
75C-90 2 Stroke	1998 - 2008
115C 2 Stroke	1990 - 2008
F40G-F70 4 Stroke	2010 - today
F30-F40 -F60-F75-F80 EFI 4 Stroke	1999 - 2007
F90-F100-F115 EFI 4 Stroke	1999 - 2007
F80-F100 4 Stroke	2000 - today
F115-F40D-F50F-F60C EFI 4 Stroke	2004 - today

***NOTE:** Suzuki engines built from 1998-2008, installing UC81-OBF cylinder requires optional KIT-SU (41954W).

Ultraflex HYTECH 175HP Front Mount Hydraulic Steering Kits



Hytech OBF all-in-one hydraulic steering kits are designed for outboard engines up to 175hp, where the boat speed does not exceed 88.5km/h (48 knots). See engine application guide chart below.

- All kits come complete with helm pump, outboard front mount cylinder, fittings and two litres of hydraulic oil.

KIT CONTAINS:

- 1x UC95-OBF Front Mount Outboard Cylinder.
- 1x UP20F Front Mount Helm Pump 20cc.
- 2x 1L Hydraulic Oil.

NOTE: Hose kits not included due to size variations, see hose kit options on pages 20.18 - 20.19

NOTE: Steering wheel not included, see the Steering Wheels category (Section 18).



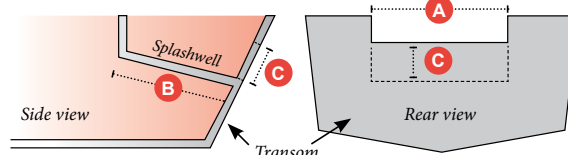
Up to 175hp - 4.7 wheel turns (balanced)

Select Your Kit

Kit	Part No.	Cylinder Type
1	JPW18939-1	UC95-OBF/1 Cylinder
2	JPW18939-2	UC95-OBF/2 Cylinder
3	JPW18939-3	UC95-OBF/3 Cylinder

Note: The 2 UC95-OBF/2 cylinder allows for a wider tilting angle.

Splash Requirements



No. of Engines	A (mm)	B (mm)	C (mm)
1	540	152	152

Engine Application Guide

Power	Year	Kit
EVINRUDE		
E40-E50-E55-E60 2 Stroke	2004-to date	1 or 2
E75-E90 2 Stroke	2004-to date	1 or 2
E115-E130 -E135 2 Stroke V4	1995-to date	1 or 2
E130-E135 2 Stroke V4	1995-to date	1 or 2
E150 -175 2 Stroke V6	1995-to date	1 or 2
HONDA		
BF75-90 4 Stroke	1995-to date	1
BF80-100	2013-to date	1
BF115D	1998-2009	3
BF115A	2009-to date	1
BF130A	1998-2005	3
BF135-150 4 Stroke	2005-to date	1
BF175-4 Stroke	2001-to date	1
JOHNSON		
BJ90-115-140 4 Stroke	2001-2007	1
BJ70 4 Stroke	2001-2007	1 or 2
J90-115 V4 2 Stroke	1995-2007	1 or 2
J150 -175 V6 2 Stroke	1995-2007	1 or 2
MERCURY MARINER		
80-75-90 2 Stroke	1990-2008	1
50-75-90 2 Stroke	1990-2008	1
75-90-115 Optimax 2 Stroke	2004-to date	3
125-135-150-175 Optimax 2 Stroke	1999-to date	1
100-115-150 EFI 2 Stroke	1999-to date	1
40-50-60 EFI 4 Stroke	2004-to date	1
75-80-90 EFI 4 Stroke	2000-to date	1
100-115-EFI 4 Stroke	2007-to date	1
175-V6 4 Stroke	2018-to date	1

Power	Year	Kit
SUZUKI		
DF70-80-90 4 Stroke	1998-to date	1 or 2
DF100-115 -140 4 Stroke	1998-to date	1
DF150-175 4 Stroke	2006-to date	1
TOHATSU NISSAN		
115-120-140 2 Stroke	2004-to date	1 or 2
70-90-115 TLDI 4 Stroke	2004-to date	1
BFT60-75-90 4 Stroke	2015-to date	1
BFT80-100-115-150 4 Stroke	2015-to date	1
70-90-115 TLDI 4 Stroke	2004-to date	1
70-90-100-115 MFS 4 Stroke	2020-to date	1
SELVA		
80 Portofino/Tigershark 2 Stroke	1995-to date	1
150 White Shark 2 Stroke	2001-2007	1 or 2
100EFI Marlin - 115 EFI Narwhal	2001-2007	1
150EFI Killer Whale 4 Stroke	2000-to date	1
YAMAHA		
60-70 2 Stroke	1984-2008	1
75C-90 2 Stroke	1998-2008	1 or 2
115C-130B -150F 2 Stroke	1990-2008	1 or 2
150-175 HPDI VMAX 2 Stroke	2000-2008	1 or 2
F60-F75-F80 EFI 4 Stroke	1999-2007	1
F90-F100-F115 F150 EFI 4 Stroke	1999-2007	1
F115-F150-F175 L4 4 Stroke	2004-to date	1

***NOTE:** Suzuki engines built from 1998 to 2008, installing UC81-OBF cylinder requires optional KIT SU (41954W).

Ultraflex NAUTECH 300HP Front Mount Hydraulic Steering Kits



Nautech steering kits are designed for outboard engines rated up to 300HP (refer to chart below for engine application guide).

- All kits come complete with helm pump, outboard front mount cylinder, fittings and two litres of hydraulic oil.

KIT CONTAINS:

- 1x UC128-OBF Front Mount Outboard Cylinder.
- 1x UP28F Front Mount Helm Pump 28cc.
- 2x 1L Hydraulic Oil.

For SECOND STATION add:

- 1x UP28F Helm Pump (JPW18900).
- 1x OB-2S Fitting kit (U38539).
- 1x 1L Hydraulic Oil (U70704).
- 1x Steering Wheel.

Up to 300hp - 4.3 wheel turns (balanced)



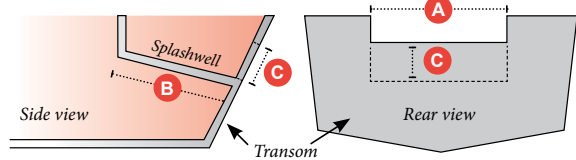
NOTE: Hose kits not included due to size variations, see hose kit options on pages 20.18 - 20.19

NOTE: Steering wheel not included, see the Steering Wheels category (Section 18).

Select Your Kit

Kit	Part No.	Cylinder Type
1	JPW18940	UC128-OBF/1 Cylinder
2	JPW18941	UC128-OBF/2 Cylinder
3	JPW18942	UC128-OBF/3 Cylinder

Splashwell Requirements



No. of Engines	A (mm)	B (mm)	C (mm)
1	560	152	152
2*	1110	152	152

*Note: For twin engine applications, the minimum distance between the two engine centres is 550mm.

Engine Application Guide

Power	Year	Kit
EVINRUDE		
E75-E90 2 Stroke	2004-to date	2
E115-E130-E135 2 Stroke V4	1995-to date	2
E150-E175-E200-E225-E250-E300 2S V6	1995-to date	2
HONDA		
BF75-BF90 4 Stroke	1995-to date	1
BF115-BF130 4 Stroke	1998-to date	3
BF135-BF150 4 Stroke	2005-to date	1
BF150 V-TEC 4 Stroke	2008-to date	1
BF175-BF200-BF225- BF250 4 Stroke	2001-to date	1
JOHNSON		
BJ90-115-140 4 Stroke	2001-2007	1
J90-115 V4 2 Stroke	1995-2007	2
J150-175 V6 2 Stroke	1995-2007	2
J200-225 V6 4 Stroke	2004-2007	2
MERCURY MARINER		
115-125-150 EFI 2 Stroke	1990-2007	1
225-250 EFI 2 Stroke	2000-2007	1
75-90-115 OPTIMAX	2004-to date	3
135-150-175 OPTIMAX	1999-to date	1
200-225-250 OPTIMAX	1999-to date	1
RACING 300 OPTIMAX	1999-2011	1
100-115 EFI 4 Stroke	2007-to date	1
250 SALTWATER EFI 4 Stroke	2007-2011	1
135-150-175-200 VERADO L4	2004-to date	1
FOURSTROKE 175-200 V6	2018-to date	1
FOURSTROKE 225-300 V8	2018-to date	1

Power	Year	Kit
SUZUKI		
DF70-80-90 4 Stroke	1998-to date	2
DF100-115-140 4 Stroke	1998-2008	1
DF100-115-140 4 Stroke (New Model)	1998-to date	1
DF150-175-DF200 L4 4 Stroke	2006-to date	1
DF200-DF225-DF250-DF300-V6 4 Stroke	2004-to date	2
TOHATSU NISSAN		
115-120-140 2 Stroke	2004-to date	2
70-90-115 TLDI 4 Stroke	2004-to date	1
BFT60-75-90 4 Stroke	2015-to date	1
BFT80-100-115 4 Stroke	2015-to date	3
BFT150-200-225-250 4 Stroke	2015-to date	1
SELVA		
80 Portofino/Tigershark 2 Stroke	1995-2008	1
150 White Shark 2 Stroke	2001-2007	2
100 EFI Marlin -115 EFI Narwhal	2000-to date	1
150EFI Killer Whale 4 Stroke	2000-to date	1
YAMAHA		
115C-130B 2 Stroke	1998 - 2008	2
75C-90 2 Stroke	1990 - 2008	2
115C-130B 2 Stroke	1996 - 2007	2
150F-200F-250G 2 Stroke	2000 - 2008	2
150 HPDI VMAX 2 Stroke	2000 - 2008	2
175-200-225-250-300 HPDI VMAX 2S	2010 - today	2
F115-F150 EFI 4 Stroke	1999 - 2007	1
F200-F225-F250 4 Stroke	2002 - 2007	2
F70 4 Stroke	2004 - today	1
F115-F150-F175-F200 L4 4 Stroke	2006 - today	1
F200-F225-F250-F300 V6 4 Stroke	2008 - today	2

*NOTE: Suzuki engines built from 1998-2008, installing UC128-OBF/1 cylinder requires optional KIT-SU (41954W).



Ultraflex HYCO 150HP Side Mount Hydraulic Steering Kit

Hyco side mount steering kits are designed for outboard engines rated up to 150HP and recommended for use where maximum boat speed does not exceed 40 knots.

- All kits come complete with a helm pump, side mount cylinder, fittings and two litres of hydraulic oil.
- UC68-OBS side mount cylinder features a Patented turning nut for a fast and easy installation to the engine tube.
- Clearance required at the engine tube side is 340mm.

KIT CONTAINS:

- 1x UC68-OBS Side Mount Cylinder.
- 1x UP20F Front Mount Helm Pump 20cc.
- 2x 1L Hydraulic Oil.

NOTE: Hose kits not included due to size variations, see hose kit options on pages 20.18 - 20.19

NOTE: Steering wheel not included, see the Steering Wheels category (Section 18).

*Up to 150hp -
3.4 or 5 wheel turns
(Unbalanced)*



Part No.	Cylinder Type
JPW18937	UC68-OBS Side Mount Cylinder

Ultraflex HYCO-1 150HP Inboard Hydraulic Steering Kit



Hyco-1 steering kits are designed for inboard engines rated up to 150HP and boats up to 10m length and 40km/h maximum speed.

- Heavy duty hose included, rated to 55 bar (800 psi).

KIT CONTAINS:

- 1x UC69-I Inboard Cylinder
- 1x UP20F Front Mount Helm Pump 20cc.
- 2x 1L Hydraulic Oil

NOTE: Hose kits not included due to size variations, see hose kit options on pages 20.18 - 20.19

NOTE: Steering wheel not included, see Steering Wheels category (Section 18).

*Up to 150hp -
4.5 wheel turns
(Balanced)*



Part No.	Cylinder Type
JPW18938	UC69-I Inboard Cylinder

Ultraflex MasterDrive™ Power Assist Steering Kits

Effortless steering for the most demanding applications, the MasterDrive™ power assisted outboard steering system delivers fingertip control regardless of speed or torque conditions. Three different selectable levels of power give the boater the desired feeling on the wheel (Patented).



- Eliminates torque at the steering wheel.
- Automatically reverts to manual mode in case of power loss.
- High efficiency, low amp draw and low noise.
- Immediate control in any sea conditions through the system always running.
- Equipped with safety switch ON/OFF (Smart Button).
- Can be used on dual station installations.
- Suitable for use with autopilot.
- Voltage: 12VDC.
- CE marked in conformity with ABYC P21, ISO 10592 safety standards.
- Ignition protected (SAE J-1171 and UNI EN 28846).

KIT CONTAINS:

- 1x UH Front or Tilt Mount Master Helm.
- 1x UPMD Power Unit, 4.5m (15') wiring harness.
- 1x UCMD Control Panel.
- 4x 1L Hydraulic Oil.



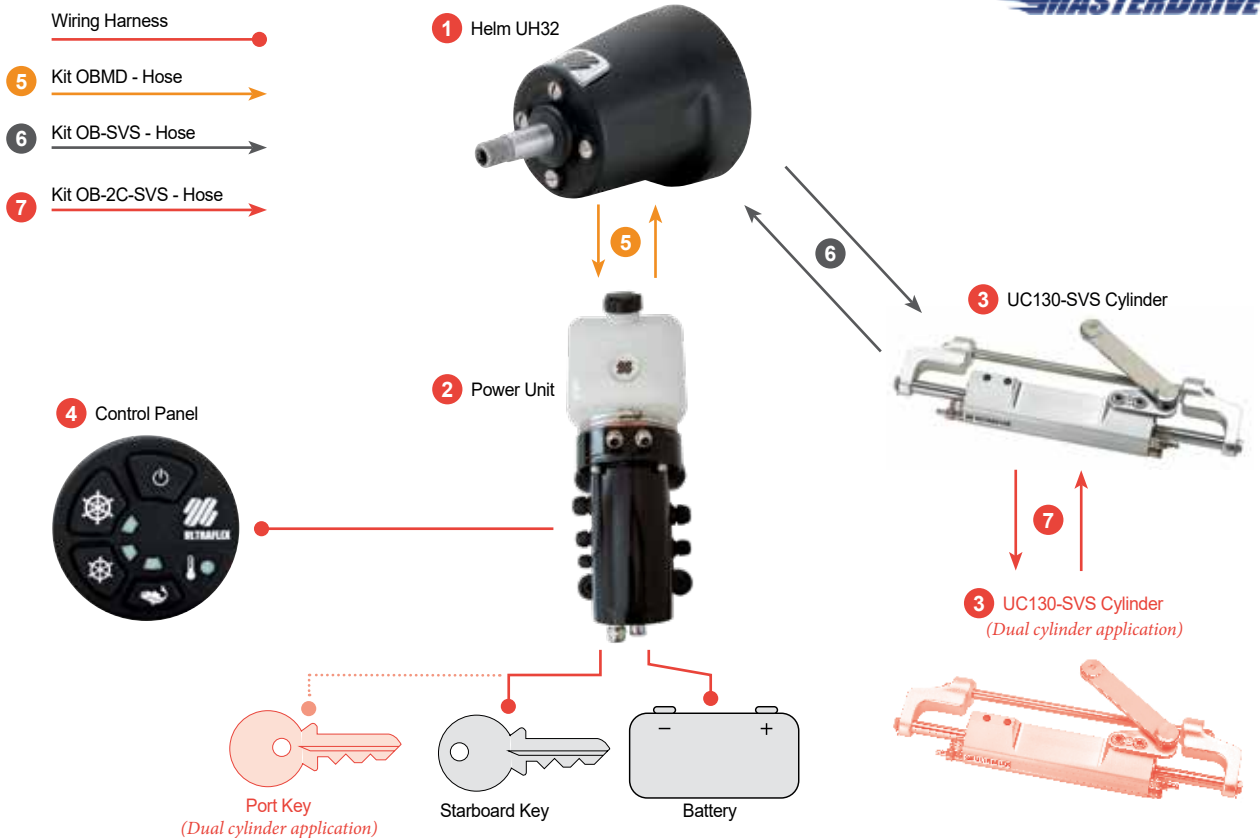
Select Your Kit

Part No.	Cylinder Type
JPW15710	MD UC32-F MasterDrive Front Mount Kit
JPW15712	MD UC40-F MasterDrive Front Mount Kit

To be ordered separately:

- The SilverSteer™ UC130-SVS cylinder
- Hydraulic hose kit
- X66 Tilt mechanism
- Tie bar
- Steering wheel

MasterDrive™ Single and Dual Cylinder Application



Ultraflex MasterDrive™ Add-On Kits for Dual Stations

KIT CONTAINS:

- 1x UHD Slave Helm Pump.
- 1x UCMD Control Panel.
- 1x U74162 - 7m (23 ft) electric cable for the second station communications.
- 1x 1L of Hydraulic Oil.
- 1x U70957 - 3/8" straight fitting.
- 2x U70831 - 3/8" T fittings.
- Installation Manual.

To order separately:

- 1x OBMD Hose Kit with length equal to the distance between the master helm pump and the slave helm pump.
- 2x OB-SVS Hose Kit: select the desired length.

For dual cylinder applications, order:

- 1x OB-2C-SVS Hose Kit: select the desired length.

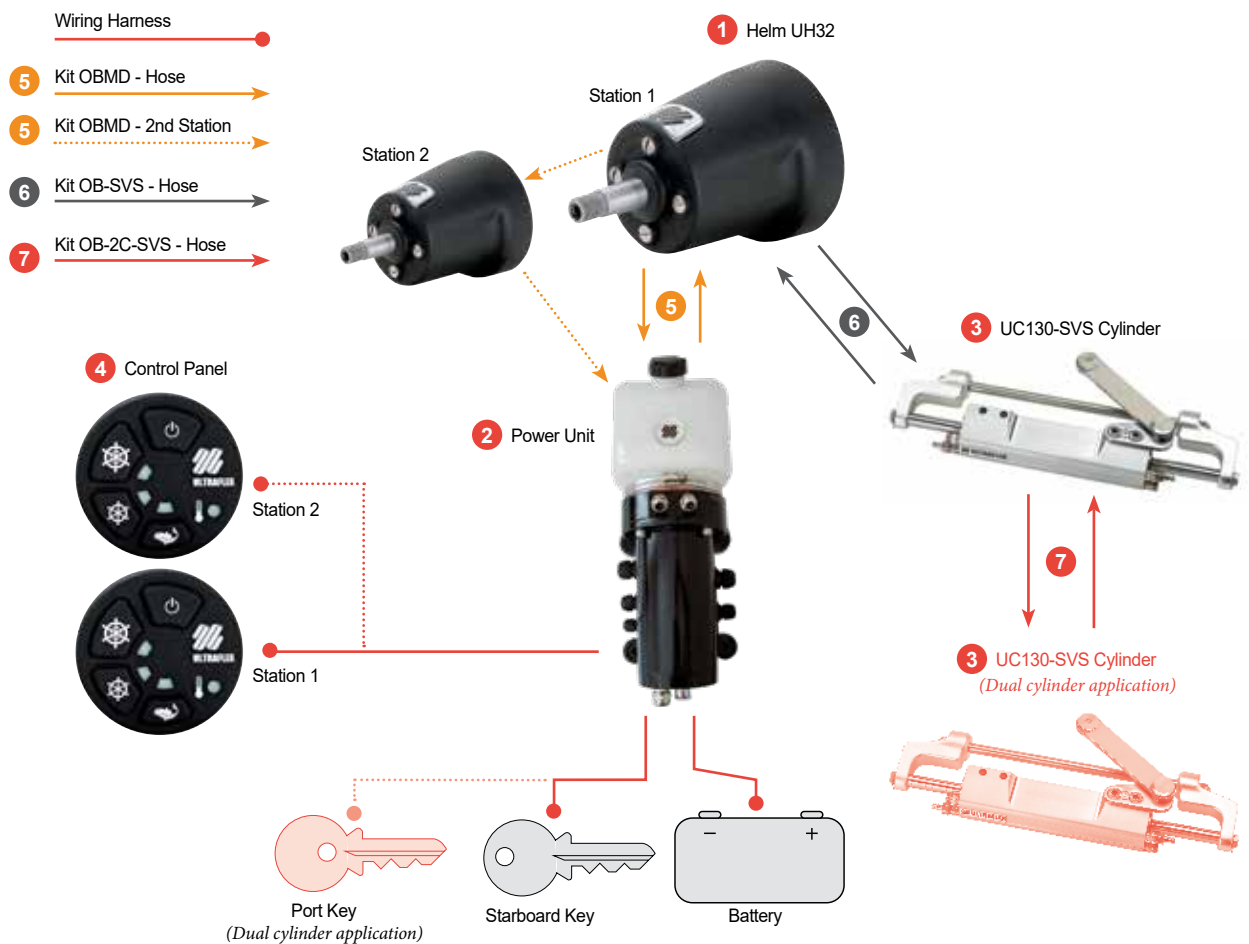


Select Your Kit

Part No.	Cylinder Type
JPW15719	MD2 UC32-F MasterDrive Second Station Kit
JPW15720	MD2 UC40-F MasterDrive Second Station Kit

NOTE: Steering wheel not included, see Steering Wheels category (Section 18).

MasterDrive™ Single / Dual Cylinder and Single / Dual Station Application





Ultraflex UC81-OBF Front Mount Hydraulic Cylinder - Up to 115HP

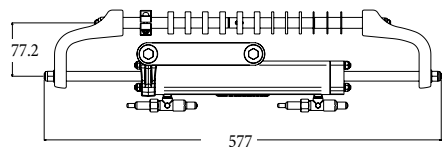
Depending on the applications on the outboard engine, the UC81-OBF can be installed port or starboard. Designed for single outboard engines up to 115HP, where the boat speed does not exceed 40 knots. Balanced: the number of wheel turns lock-to-lock is equal port to starboard or vice-versa.

- Zero feedback for super smooth steering.
- Replaceable cylinder heads.
- 9.5mm (3/8") fittings for high pressure flex hose.



See the application guide on page 20.4

Volume:	81cc (4.9 cu.in)	Stroke:	186mm (7.3")
Output Force:	222kg	Fittings:	9.5mm (3/8")
Inside Diameter:	27.4mm (1.08")	Bleed Fittings:	DN5 Quick Connect



(Dimensions in mm)

Part No.
JPW18846

Ultraflex UC128-OBF Front Mount Cylinders - Up to 300HP

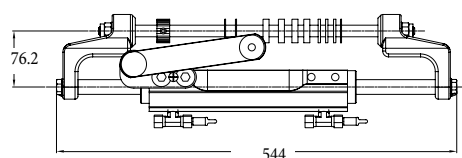


For use with outboard engines up to 300HP, the UC128-OBF cylinder is simple to install and fits almost every 2 and 4 stroke outboard engine in the market. For dual engines, it is necessary to order a standard UC128-OBF cylinder (link arm on the starboard side of the cylinder) and a Port UC128-OBF cylinder (link arm on the port side of the cylinder). Available in different versions depending on the applications on the outboard engines.

- Heavy duty stainless steel cylinder rod, seals and link assemblies.
- Constructed of top grade materials, built to last.
- Adjustable boss style fittings for easy installation.
- High resistance stainless steel connection bolt.

See the application guide on page 20.6

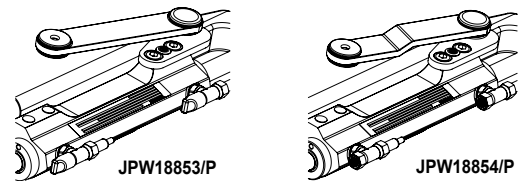
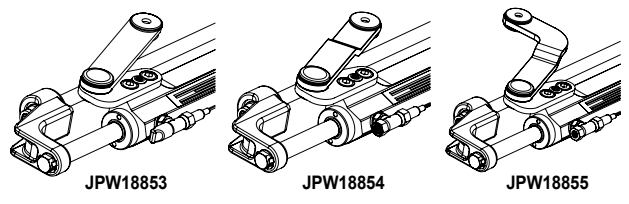
Volume:	120cc (7.3 cu.in)	Stroke:	185mm (7.28")
Output Force:	450kg	Fittings:	9.5mm (3/8")
Inside Diameter:	35mm (1.37")	Bleed Fittings:	DN5 Quick Connect



(Dimensions in mm)

Starboard Side Cylinders

Port Side Cylinders



Part No.	Description
JPW18853	UC128-OBF/1 Starboard Side
JPW18854	UC128-OBF/2 Starboard Side
JPW18855	UC128-OBF/3 Starboard Side

Part No.	Description
JPW18853P	UC128P-OBF/1 Port Side
JPW18854P	UC128P-OBF/2 Port Side



Ultraflex UC95-OBF Front Mount Hydraulic Cylinders - Up to 175HP

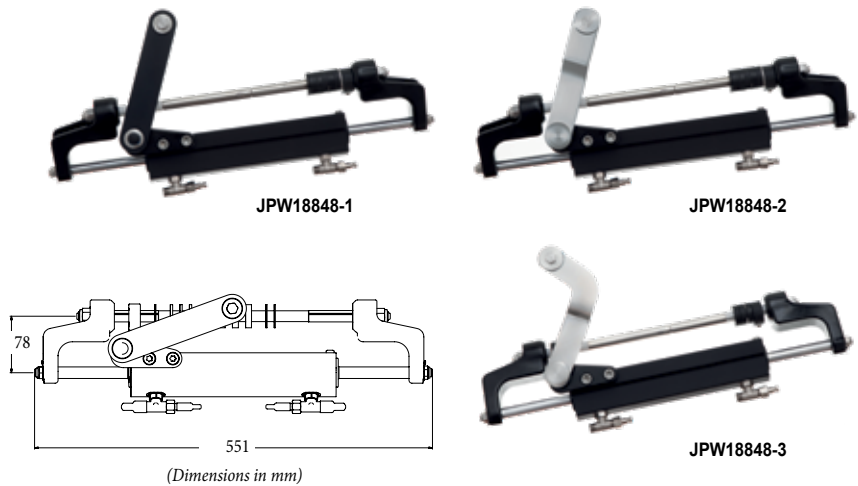
Patented innovative design with a split and pinned cylinder mounting rod for easy installation and bushing to prevent friction with the engine tilt tube. Recommended for use with outboard engines 175HP total and where the boat speed does not exceed 88.9 km/h or 48 knots.

- Balanced: the number of wheel turns lock-to-lock is equal port to starboard or vice-versa.
- Adjustable boss style fittings for easy installation.
- Replaceable cylinder heads.
- 9.5mm (3/8") fittings for high pressure flex hose.
- High resistance stainless steel connection bolt.
- Not intended for use in racing applications.

See the application guide on page 20.5

Volume: 94cc (5.7 cu.in)
Output Force: 278kg
Inside Diameter: 30mm (1.18")
Stroke: 186mm (7.3")
Fittings: 9.5mm (3/8")
Bleed Fittings: DN5 Quick Connect

Part No.	Description
JPW18848-1	UC95-OBF/1 Cylinder
JPW18848-2	UC95-OBF/2 Cylinder
JPW18848-3	UC95-OBF/3 Cylinder



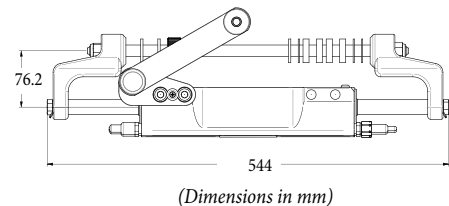
Ultraflex UC130-SVS SilverSteer™ Front Mount Cylinders - Up to 350HP



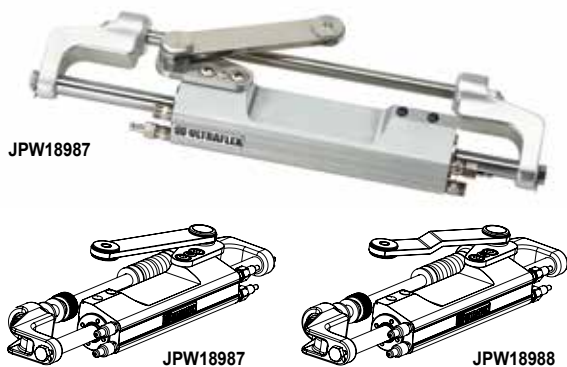
Built to last with heavy duty stainless steel cylinder rod, seals and link assemblies, these high performance cylinders are simple to install and fit almost every 2 and 4 stroke outboard engine in the market. Recommended for high horsepower applications, bass boats and tournament fishing boats. For dual engines, it is necessary to order a standard UC130-SVS cylinder (link arm on the starboard side of the cylinder) and a port UC130P-SVS cylinder (link arm on the port side of the cylinder). Available in different versions depending on the applications on the outboard engines.

- Balanced: the number of wheel turns lock-to-lock is equal port to starboard or vice-versa.
- Side fittings for easy installation.
- Replaceable cylinder heads.
- Tie bar is required for use on dual engine/dual cylinder applications (sold separately).
- High resistance stainless steel connection bolt.
- Not intended for use in racing applications.

Volume: 130cc (7.93 cu.in)
Output Force: 492kg
Inside Diameter: 36mm (1.42")
Stroke: 185mm (7.28")
Fittings: 9.5mm (3/8")
Bleed Fittings: DN5 Quick Connect

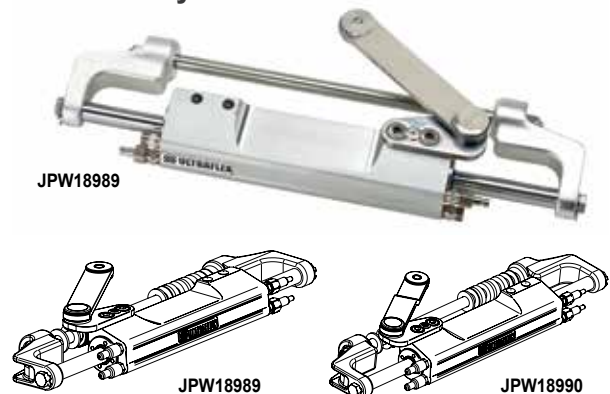


Starboard Side Cylinders



Part No.	Description
JPW18987	UC130-SVS/1 Starboard Side
JPW18988	UC130-SVS/2 Starboard Side

Port Side Cylinders



Part No.	Description
JPW18989	UC130P-SVS/1 Port Side
JPW18990	UC130P-SVS/2 Port Side

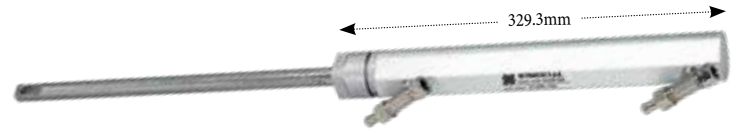




Ultraflex UC68-OBS Side Mount Cylinder - Up to 150HP

The UC68-OBS side mount cylinder features a patented turning nut for a fast and easy installation to the engine tube. Recommended for outboard engines up to 150HP, this cylinder is unbalanced, the number of turns lock-to-lock is not equal port to starboard and vice versa.

- For use where maximum boat speed does not exceed 40 knots.
- Clearance required at the engine tube side: 340mm.
- Fittings for high pressure flex hose: 9.5mm (3/8")
- Suggested helm pump: UP20.



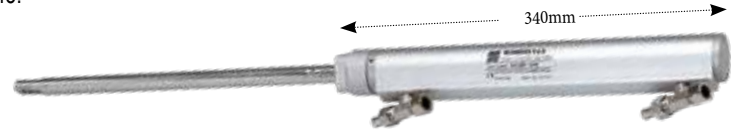
Part No.	Volume	Output Force (kg)	Inside Dia. (mm)	Stroke (mm)
JPW18919	68/100 cc (4.1/6.1 cu. in)	185/270	25	205

Ultraflex UC132-OBS Side Mount Cylinder - Up to 300HP



Recommended for outboard and stern drive engines up to 300HP, and for use where maximum boat speed does not exceed 48 knots. Featuring a patented turning nut for a fast and easy installation to the engine tube.

- Unbalanced: the number of turns lock-to-lock is not equal port to starboard and vice versa.
- Suggested helm pumps: UP25, UP28, UP33, UP39 or UP45.
- Clearance required at the engine tube side: 375mm.
- Fittings for high pressure flex hose: 9.5mm (3/8")



Part No.	Volume	Output Force (kg)	Inside Dia. (mm)	Stroke (mm)
JPW18918	132/163 cc (8/9.95 cu. in)	464/574	32	203

Ultraflex UC133-IOB Sterndrive Cylinder



- Balanced: the number of turns lock-to-lock is equal port to starboard and vice versa.
- For sterndrive engines only.
- Maximum rudder torque 66kgm.
- Suggested helm pumps: UP28 or UP33.



Part No.	Volume	Torque (kgm)	Output Force (kg)	Inside Dia. (mm)	Stroke (mm)
JPW18914	132cc (8 cu.in)	66	464	32	203

Ultraflex UC69-I, UC116-I, UC168-I, UC215-I Inboard Cylinders



All these inboard cylinders are balanced, the number of turns lock to lock is equal to port to starboard or vice-versa.



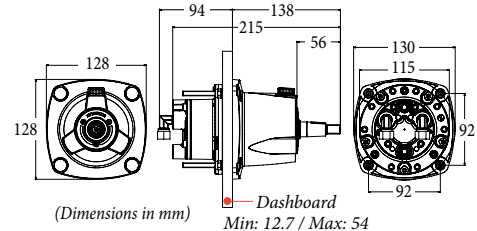
Part No.	Model	Volume	Torque (kgm)	Output Force (kg)	Inside Dia. (mm)	Stroke (mm)	Recommended Helms
JPW18917	UC69-1	69cc (4.2 cu.in)	32	168	25	150	UP20
JPW18925	UC116-1	116cc (7 cu.in)	58	464	32	178	UP25 or UP28
JPW18923	UC168-1	168CC (10.25 cu.in)	87	673	40	178	UP28 or UP33
JPW18924	UC215-1	215cc (13.12 cu.in)	111	673	40	228	UP33 or UP39



Ultraflex UP18 Intermediate Front Mount Helm Pump

Intermediate dashboard position mount helm pump suited for hydraulic systems up to 115HP, for use with UC81-OBF cylinder only.

- Corrosion proof composite housing with a 3/4" tapered stainless steel shaft.
- Built-in lock valve for positive rudder lock.
- Integral relief valve for over-pressure protection.
- Includes 2x 1/4" NPT fittings.
- Easy accessible lock valve and shaft seal for replacement.
- For use with UC81-OBF cylinder and KIT OB-GT/M hydraulic hoses only.



Displacement/Revolutions: 18cc (1.1cu.in)
No. of Pistons: 5
Relief Valve Setting: 55bar (800psi)
Max Wheel Diameter: 508mm
Weight: 3.6kg

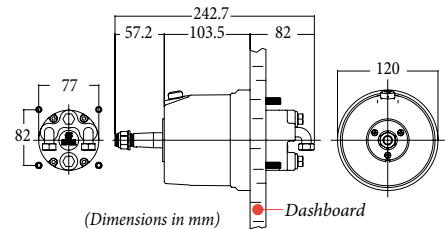
Part No.
JPW18899

Ultraflex UP20F Front Mount Helm Pump



Suited for hydraulic steering systems up to 175HP, the UP20F helm must be used with UC95-OBF, UC68-OBS and UC69-I cylinders only.

- Built-in lock valve for positive rudder lock.
- Integral relief valve for over-pressure protection.
- 3/4" tapered stainless steel shaft.
- Corrosion proof composite housing.
- Easy accessible lock valve and shaft seal for replacement.
- Includes 90° adjustable fittings for 3/8" tube.
- Use the X74 square flange (U43048) to install in an intermediate dashboard position.



Displacement/Revolutions: 20cc (1.2cu.in)
No. of Pistons: 5
Relief Valve Setting: 70bar (1000psi)
Max Wheel Diameter: 508mm
Weight: 3.6kg

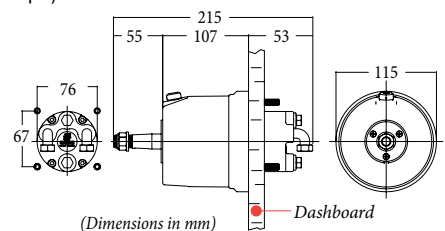
Part No.
JPW18898

Ultraflex UP25F, UP28F, UP22F, UP39F & UP45F Front Mount Helm Pumps



Compact designed hydraulic steering front mount helm pumps available in different displacement sizes. To install in an intermediate dashboard position, use the X64 Square Flange (U40198) or X57 Round Flange (U39464) (sold separately).

- Ball bearing piston race.
- Built-in lock valve for positive rudder lock.
- Integral relief valve for over-pressure protection.
- 3/4" tapered stainless steel shaft.
- Easily accessible lock valve and shaft seal for replacement.
- Includes elbow fittings for 3/8" tube.
- Tilt mechanism X72 (U43140) provides tilt range of 60° and five locking positions (sold separately).



Relief Valve Setting: 70bar (1000psi)
Max Wheel Diameter: 710mm
Weight: 5kg

Part No.	Model	Displacement/Revolutions	No. of Pistons
JPW18910	UP25F	25cc (1.5cu.in)	5
JPW18900	UP28F	28cc (1.7cu.in)	5
JPW18901	UP33F	33cc (2.0cu.in)	7
JPW18902	UP39F	39cc (2.4cu.in)	7
JPW18911	UP45F	45cc (2.7cu.in)	7



Ultraflex UP20T Tilt Mount Helm Pump with X52 Tilt Mechanism

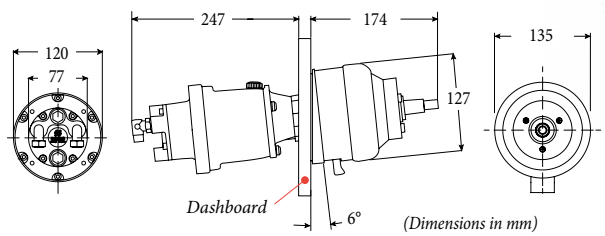
Suited for hydraulic steering systems up to 175HP, the UP20T tilt mount helm pump with X52 tilt mechanism provides tilt range of 48° and 5 locking positions. For use with UC95-OBF, UC68-OBS and UC69-I cylinders only.

- Use the X74 square flange (U43048) for intermediate dashboard position mount position (sold separately).
- Built-in lock valve for positive rudder lock.
- Integral relief valve for over-pressure protection.
- 3/4" tapered stainless steel shaft.
- Corrosion proof composite housing.
- Easy accessible lock valve and shaft seal for replacement.
- Includes 90° adjustable fittings for 3/8" tube.

Note: Helm and Tilt Mechanism sold separately.

Displacement/Revolutions: 20cc (1.2cu.in)
No. of Pistons: 5
Relief Valve Setting: 70bar (1000psi)
Max Wheel Diameter: 508mm
Weight: 3.6kg

Part No.	Model
JPW18906	UP20T Tilt Mount Helm Pump
JPW18800	X52 Tilt Mount Mechanism



Ultraflex UP25T, UP28T, UP33T, UP39T and UP45T Tilt Mount Helm Pump with X52 Tilt Mechanism

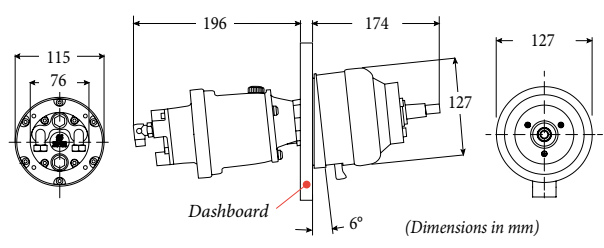
Compact designed hydraulic tilt mount helm pumps, available in different displacement sizes, with X52 tilt mechanism provides tilt range of 48° and 5 locking positions.

- Corrosion proof composite housing with tapered stainless steel shaft.
- Ball bearing piston race
- Built-in lock valve for positive rudder lock
- Integral relief valve for over-pressure protection
- Easily accessible lock valve and shaft seal for replacement
- Cast iron rotor for greater durability and longer life
- Includes elbow fittings (for 3/8" tube)
- UP45T helm pumps are ideal for dual cylinder, dual engine applications
- "Kit F" Remote Filler Kit Adaptor (U39664) not included (optional but recommended).

Note: Helm and Tilt Mechanism sold separately.

Relief Valve Setting: 70bar (1000psi)
Max Wheel Diameter: 710mm
Weight: 5kg

Part No.	Model	Displacement/Revolutions	No. of Pistons
JPW18945	UP25T	25cc (1.5cu.in)	5
JPW18903	UP28T	28cc (1.7cu.in)	5
JPW18904	UP33T	33cc (2.0cu.in)	7
JPW18905	UP39T	39cc (2.4cu.in)	7
JPW18920	UP45T	45cc (2.7cu.in)	7





Ultraflex Front Mount Helm Pumps to suit Silversteer™ Systems

The SilverSteer SVS compact designed helms have been specifically designed for high torque applications such as bass boats, flat boats, and boats with shallow dead rise and high horse power. Complete with 90° adjustable fittings for 3/8" tube.

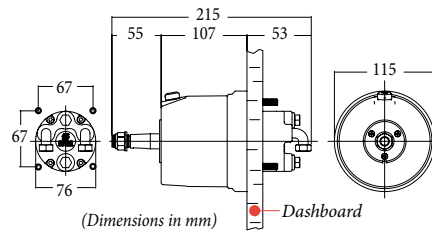
- Ball bearing piston race.
- Integral relief valve for over-pressure protection.
- Cast iron rotor for greater durability and longer life.
- Easily accessible lock valve and shaft seal for replacement.
- Tilt mechanism X72 (U43140) provides tilt range of 60° and five locking positions (sold separately).
- Built-in lock valve for positive rudder lock.
- 3/4" tapered stainless steel shaft.

Relief Valve Setting: 105bar (1500psi)

Max Wheel Diameter: 710mm

Weight: 5kg

Part No.	Model	Displacement/Revolutions	No. of Pistons
JPW18947	UP28T-SVS	28cc (1.7cu.in)	5
JPW18948	UP33T-SVS	33cc (2.0cu.in)	5
JPW18949	UP39T-SVS	39cc (2.4cu.in)	7



Ultraflex Rear Mount Helm Pumps



Compact hydraulic rear mount helm pumps, available in different displacement sizes, complete with elbow fittings for 3/8" tube and white bezel.

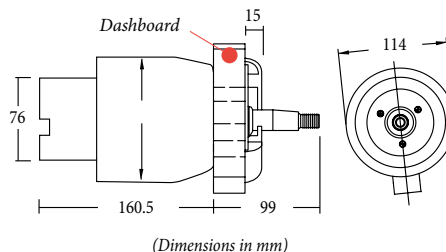
- Ball bearing piston race.
- Integral relief for over-pressure protection.
- Cast iron cylinder rotor for greater durability and longer life.
- Easily accessible lock valve and shaft seal for replacement.
- "Kit F" Remote Filler Kit Adaptor (U39664) not included (optional but recommended).
- Built-in lock valve for positive rudder lock.
- 3/4" tapered stainless steel shaft.

Relief Valve Setting: 70bar (1000psi)

Max Wheel Diameter: 710mm

Weight: 5kg

Part No.	Model	Displacement/Revolutions	No. of Pistons
JPW18907	UP28R	28cc (1.7cu.in)	5
JPW18908	UP33R	33cc (2.0cu.in)	7
JPW18909	UP39R	39cc (2.4cu.in)	7
JPW18912	UP45R	45cc (2.7cu.in)	7



U40894
X68 Chrome Bezel to suit the range of rear mount helms

MasterDrive™ UH/UHD Power Assisted Helm Pumps

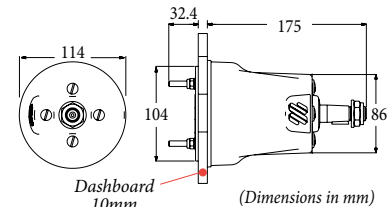


Available in two different displacement sizes, either front mount, tilt mount or second station "Slave" version.

- Corrosion resistant painted body with 3/4" tapered shaft.
- Built-in relief valve.
- Tilt mount versions suitable for use with X66 tilt mechanism (JPW18975) (sold separately).



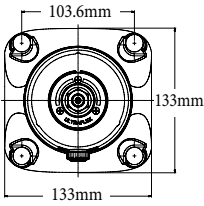
Part No.	Model	Mounting	Application	Station No.	Displacement/Revolutions
JPW18970	UH32-F	Front Mount	Single Cylinder	1	32cc (1.95cu.in)
JPW18968	UHD32-F	Front Mount	Single Cylinder	2	32cc (1.95cu.in)
JPW18971	UH32-T	Tilt Mount	Single Cylinder	1	32cc (1.95cu.in)
JPW18972	UH40-F	Front Mount	Dual Cylinder	1	40cc (2.44cu.in)
JPW18969	UHD40-F	Front Mount	Dual Cylinder	2	40cc (2.44cu.in)
JPW18974	UH40-T	Tilt Mount	Dual Cylinder	1	40cc (2.44cu.in)



Ultraflex X74 Square Flange



Allows installation of the UP20F front mount or UP20T tilt mount helm pumps in an intermediate dashboard position.



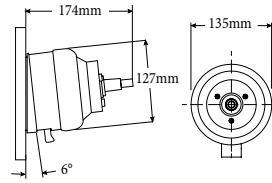
Part No.
U43048

Ultraflex X52 Tilt Mechanism



Fits standard Ultraflex tilt mount rotary and rack and pinion steering helms; and standard Ultraflex tilt mount hydraulic pumps.

- Allows a tilt range of 48° and five locking positions.

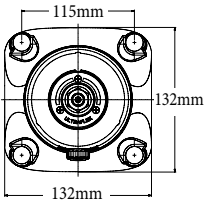


Part No.
JPW18800

Ultraflex X64 Square Flange



Allows installation of the UP25F, UP28F, UP33F, UP39F and UP45F front mount helm pumps in an intermediate dashboard position.



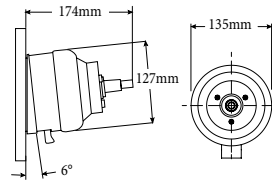
Part No.
U40198

Ultraflex X66 Tilt Mechanism for MasterDrive™



The X66 tilt mechanism for MasterDrive™ tilt mount helms.

- Allows a tilt range of 48° and five locking positions.

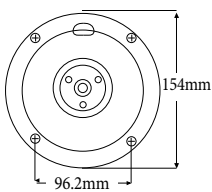


Part No.
JPW18975

Ultraflex X57 Round Flange



Allows installation of the UP25F, UP28F, UP33F, UP39F and UP45F front mount helm pumps in an intermediate dashboard position.



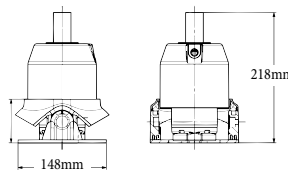
Part No.
U39464

Ultraflex X72 Tilt Mechanism



Suitable for use with standard Ultraflex hydraulic front mount helms as well as SilverSteer™ SVS front mount helm pumps.

- Allows a tilt range of 60° and five locking positions.



Part No.
U43140



Note: As the tiller arm position varies on each engine and the distance between two engines is not predictable, unexpected interferences may occur while tilting. A check of the tie bar installation before operation is strongly recommended.

A88 Tie Bar For Twin Outboards

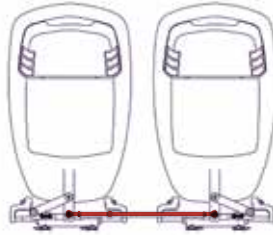


Adjustable universal tie bar suitable for all outboard applications with single or dual cylinders with up to 300HP of maximum power.

- Electro polished stainless steel ball joint.
- All stainless steel components.
- Applicable to twin outboard engines using hydraulic/mechanical steering.



Note: On those applications where the clearance between engine tiller arms and cowling is not sufficient for the use of the A88, the A92 tie bar is recommended.



Part No.	Length (mm)
JPW18050	650 - 950

A95 Tie Bar For Twin Outboards

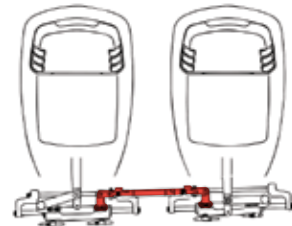


Suitable for twin front mount cylinders (UC128-OBF or UC130-SVS). The length can be adjusted as the distance between engine centers varies.

- Allows to tilt the engines independently.
- All stainless steel components.
- Electro-polished stainless steel ball joints.



Note: For applications with dual UC128-OBF or UC130-SVS cylinder, it is necessary to order a standard starboard cylinder (link arm attached to the starboard side of the cylinder) and a port cylinder (link arm attached to the port side of the cylinder).



Part No.	Length (mm)
JPW18046	660 - 812

A92 Tie Bar For Twin Outboards



Adjustable universal tie bar suitable for all outboard applications with single or dual cylinders with up to 300HP of maximum power.

- Easily adjustable before or after installation.
- Electro polished stainless steel ball joint.
- All stainless steel components.
- Also applicable to twin outboard engines using mechanical steering.



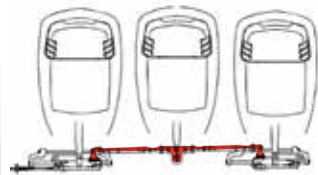
Part No.	Length (mm)
JPW18052	550 - 700

A97 Tie Bars For Triple Outboards



Heavy duty tie bars suitable for twin front mount cylinders (UC128-OBF or UC130-SVS). The length can be adjusted as the distance between engine centers varies.

- Allows to tilt the engines independently.
- All stainless steel components.
- Electro-polished stainless steel ball joints.



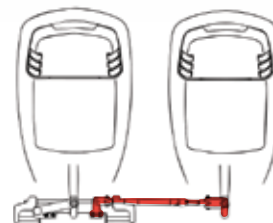
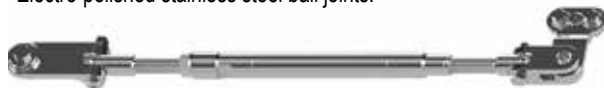
Part No.	Length (mm)
JPW18047	660 - 762
JPW18048	762 - 902

A96 Tie Bar For Twin Outboards



Suitable for single front mount cylinders (UC128-OBF or UC130-SVS). The length can be adjusted as the distance between engine centers varies.

- Allows to tilt the engines independently.
- All stainless steel components.
- Electro-polished stainless steel ball joints.



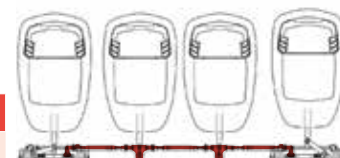
Part No.	Length (mm)
JPW18049	660 - 812

A98 Tie Bar For Quad Outboards



Heavy duty tie bars suitable for twin front mount cylinders (UC128-OBF or UC130-SVS). The length can be adjusted as the distance between engine centers varies.

- Allows to tilt the engines independently.
- All stainless steel components.
- Electro-polished stainless steel ball joints.



Part No.	Length (mm)
JPW18045	660 - 812

Semi Rigid Hydraulic Nylon Tubing

- Tube Diameter: 3/8" (9.5mm).
- Working pressure: 625psi.
- Not recommended in application where total tubing run exceeds 30m.
- Sold in cut lengths per metre to requested requirements - once cut to length, a re-stocking fee will apply if returning.



Each hose requires 2x brass hose connectors:

- Brass Nut (U71004) or
- Nickel Plated Nut (U71013)

Part No.
U70701

Ultraflex OB Hydraulic High Flex Hose Kits

- Two 5/16" hoses with pre-crimped brass fittings on both ends and bend restrictors on one end.
- Simple and quick to install.
- Recommended for use with all Ultraflex standard helms with 1000psi relief.
- Highly flexible, high flow hose.



Bulkhead Kit for Dual Hose Refer to page 20.20

Part No.	Hose Length	
	(m)	(ft)
JPW18000	3	9.8
JPW18001	3.5	11.5
JPW18002	4	13.2
JPW18003	4.5	14.8
JPW18004	5	16.4
JPW18005	5.5	18
JPW18006	6	19.7

Part No.	Hose Length	
	(m)	(ft)
JPW18007	6.5	21.3
JPW18008	7	22.9
JPW18009	7.5	24.6
JPW18010	8	26.2
JPW18011	8.5	27.9
JPW18012	9	29.5

Ultraflex OB Hydraulic High Flex Hose

High flex hose with no fitting for custom installations, recommended for use with all Ultraflex standard helms with 1000psi relief.

- Tube Diameter: 5/16" (8mm).
- Highly flexible, high flow hose.
- Sold in cut lengths per metre to requested requirements - once cut to length, a re-stocking fee will apply if returning.



Each hose requires:
• Brass end fittings with nut (U42670)

Part No.
U41305

Ultraflex OB-2S Additional Station Kit

- Fitting kit for second steering station or an autopilot installation.
- Includes all necessary fittings and 8m (26.3ft) of nylon tube for the compensating line.
- Tube Diameter: 3/8" (9.5mm).



Part No.
U39539

Ultraflex OB-2C Dual Engine/Dual Cylinder Hydraulic Hose Kits

Designed to fit from the splashwell/bulkhead adapter to the cylinder or link two or more cylinders in two or more outboards applications.

- Two high pressure flexible hoses with brass fittings on both ends.
- Recommended for use with the R9 bulkhead kit for dual hose applications.

Note: Not recommended for use with SilverSteer series cylinders.



Bulkhead Kit for Dual Hose Refer to page 20.20

Part No.	Hose Length	
	(m)	(ft)
JPW18030	0.7	2.30
JPW18031	0.9	2.95
JPW18032	1.2	3.95

Ultraflex OB-M Hydraulic Hose Kits for Custom Installations

These pre-assembled hose kits are available in two standard lengths that can be cut to fit the required custom length. Simple and quick to install.

- Two 5/16" I.D. hose kits with pre-crimped Brass fittings at one end.
- Supplied with 2 QuickFit Brass Connectors and 2 Bend Restrictors.
- Recommended for use with all Ultraflex standard helms with 1000psi relief valves.

Note: Not recommended for SilverSteer or MasterDrive series cylinders.



Part No.	Hose Length	
	(m)	(ft)
JPW18020	6	19.7
JPW18021	9	29.5

Ultraflex OB/R5 Hydraulic Hose Kits with R5 Bulkhead Fittings

Two high pressure flexible hoses with pre-crimped brass fittings, R5 bulkhead fittings and bend restrictors on both ends.

- Recommended for use with all Ultraflex standard helms with 70 Bar (1000 psi) relief valves.
- Sold in pairs.



Part No.	Hose Length	
	(m)	(ft)
JPW17980	3	9.8
JPW17981	3.5	11.5
JPW17982	4	13.2
JPW17983	4.5	14.8
JPW17984	5	16.4
JPW17985	5.5	18
JPW17986	6	19.7

Part No.	Hose Length	
	(m)	(ft)
JPW17987	6.5	21.3
JPW17988	7	22.9
JPW17989	7.5	24.6
JPW17990	8	26.2
JPW17991	8.5	27.9
JPW17992	9	29.5

Ultraflex Silversteer™ OB-2C-SVS Dual Cylinder Hose Kits

Two high pressure Kevlar™ stranded flexible hoses with pre-crimped fittings and bend restrictors on both ends.

- Recommended for use with all SilverSteer™ SVS cylinders.
- Sold in pairs.



Part No.	Hose Length	
	(m)	(ft)
JPW15701	0.7	2.30
JPW15702	0.9	2.95
JPW15703	1.2	3.95

Ultraflex OB-SVS Hose Kits for SilverSteer™ and MasterDrive™ Systems

Two high pressure Kevlar™ stranded flexible hoses with pre-crimped fittings and bend restrictors on one end.

- Recommended for use with all SilverSteer™ SVS cylinders to MasterDrive™ Helms with 1500psi relief valves.
- Sold in pairs.



Part No.	Hose Length	
	(m)	(ft)
JPW15679	1	3.3
JPW15680	1.5	4.9
JPW15681	2	6.5
JPW15682	2.5	8.2
JPW15683	3	9.8
JPW15684	3.5	11.5
JPW15685	4	13.2
JPW15686	4.5	14.8
JPW15687	5	16.4
JPW15688	5.5	18

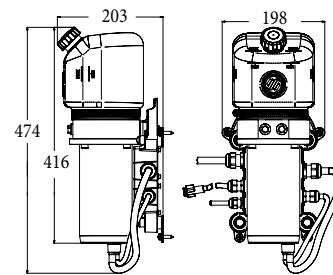
Part No.	Hose Length	
	(m)	(ft)
JPW15689	6	19.7
JPW15690	6.5	21.3
JPW15691	7	22.9
JPW15692	7.5	24.6
JPW15693	8	26.2
JPW15694	8.5	27.9
JPW15695	9	29.5
JPW15696	10	32.8
JPW15697	11	36.0
JPW15698	12	39.3

Ultraflex MasterDrive™ UPMD Power Unit

Bulkhead or floor mount 12VDC motor with a black galvanised motor case. Salt water resistant, with an IP67 water protection rating.

- Semi-transparent 0.5L tank provides clear view of oil level.
- Ignition protected (SAEJ-1171 and UNI EN 28846).
- 90° swiveling fittings for easy installation.
- Suitable for applications with auto-pilot.
- Vented filler plug.
- Includes 4.5m wiring harness.

IP67



(Dimensions in mm)

Part No.
JPW18981



Ultraflex MasterDrive™ UCMD Control Panel

Features three different power levels with light indicator and safety ON/OFF switch. Suitable for a second station installation.

- Motor temperature visual indicator.
- Twin engine key selection included.
- Lighted panel for stand-by position.
- Plug-in wiring harness.



Part No.
JPW18982

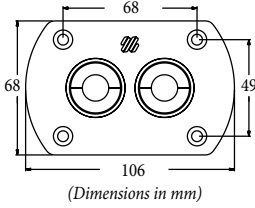
R8 Through Outboard Well Bulkhead Hose Kits

Dual hose connection flange with either a chrome, black or white finish.

- Suitable for fibreglass, polyethylene and aluminum boats.
- Reduces hose kinking.



Part No.	Type	Colour
U41299	R8B	Black
U41300	R8W	White
U41301	R8CH	Chrome



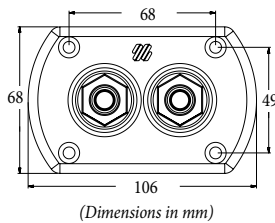
R9 Through Outboard Well Bulkhead Hose Kits

Bulkhead kit for dual thru-hull hose applications suitable for fibreglass, polyethylene and aluminium boats.

- Reduces risk of corrosion on aluminium boats caused from chrome fittings touching aluminium and paintwork.
- Reduces installation time.
- 3/8" BSP to suit all standard hydraulic nut and olives.
- Chrome plated brass threaded fittings, ABS plastic flange supplied with 4x stainless steel counter sunk self tapping screws.



Part No.	Type	Colour
U41302	R9B	Black
U41303	R9W	White
U41304	R9CH	Chrome



Hydraulic Hose Nut and Olive - 3/8"

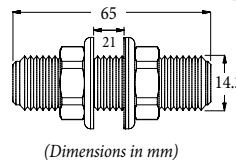
- Suits 3/8" O.D hydraulic nylon tubing (U70701).



Part No.	Type
U71004	Brass
U71013	Nickel Plated

Bulkhead Fitting Kit - 3/4"

R7 kit includes two assemblies (as illustrated) per kit.



Part No.
U40819



Adjustable Bleed T for Hydraulic Cylinder - 3/8"

Suits all cylinders except UC94-OBF with serial number prior to 30 1156 000001.



Part No.
U40868

Hydraulic Hose Connectors - 3/8"

- Brass fittings suit 3/8" hose.
- U42656 suits GoTech 1/4" hose only.
- U42670 suits 5/16" hose.



Part No.	Description
U39471	Straight connector fitting suits helm and tube, includes olive
U39472	Elbow connector fitting suits helm and tube, includes olive
U39518	Additional Station Fitting Kit
U39502	Tee Fitting, includes olive
U39503	Bleed Tee suits cylinders and tube, includes olive
U42656	2x Brass end fittings with nut - suits Gotech 1/4" inch hose
U42670	2x Brass end fittings with nut - suits 5/16" hose

Bend Restrictors for Hydraulic Hose

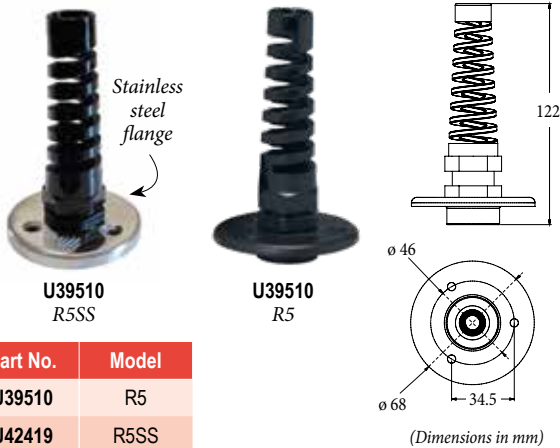
Two bend restrictors to suit 5/16" inside diameter hydraulic hose.



Part No.
U41822

Strain Relief Hose Kits

R5 kit distributes strain from bends in hose. Features a water tight gripper fitting and a bulk head fitting flange for hose protection.



Part No.	Model
U39510	R5
U42419	R5SS

Ultraflex Hydraulic Cylinder Seal Kits



Part No.	Suits Cylinder Model
SKAE2069	UC128-OBF
SKAE2075	UC94-OBF
SKAE2485	UC132-OBS

Hydraulic Fluid Link Valve - 3/8"

Fluid link valve for twin engine/twin cylinder applications where a mechanical tie bar is not feasible.

- Connect using standard Kit-OB or Kit-OB/R5 hoses.
- Engine centres must be at least 38" wide as engine can periodically misalign.



Part No.
U42829

Hydraulic Oil

High quality hydraulic oil sold in 1 litre containers.

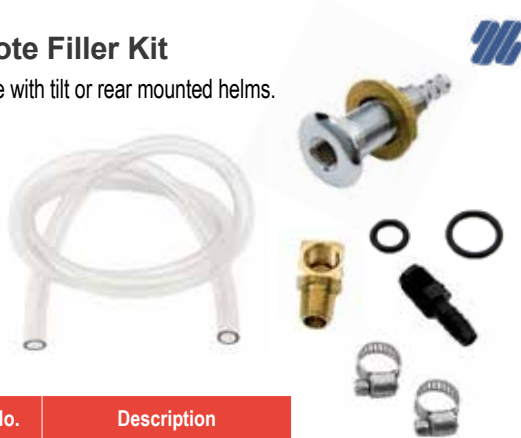
- Hydraulic oil: ISO VG 15
- Viscosity: 15 cst at 40 °C
- Viscosity index: >150
- Solidification point: < -30 °C
- Contamination according to NAS1638 ≤ 8



Part No.	Capacity
U70704	1L

Remote Filler Kit

- For use with tilt or rear mounted helms.



Part No.	Description
U39664	Remote Fill Adaptor "Kit F"

Helm Pump Filling Kit

- Help fill an Ultraflex hydraulic helm with hydraulic oil.



Part No.
U42960

Filler Plugs

Replacement Ultraflex hydraulic helm pump filler plugs.



Part No.	Type
U39469	Vented
U39470	Non-Vented



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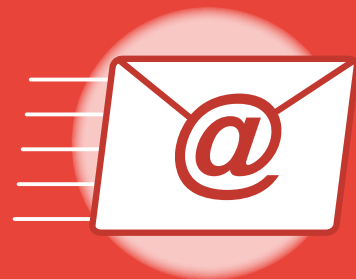


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