



CABLES AND CONTROLS

STEER YOUR WAY



MARINE PRODUCTS

SPECIALIST CREATING FUTURE BY TECHNOLOGICAL INNOVATION

Connection Technology Reliability





PRETECH CABLES AND CONTROLS

Pretech has been the leading manufacturer and supplier of Steering Cable Systems, Control Cables, Control Levers and Accessories for over 20 years. As a premier manufacturer and supplier to the marine industry, Pretech's products are of the highest quality.

There are over 70 global Pretech distributors supplying marine and industrial products in 40 countries around the world. Hundreds of boat builders and special equipment industrial dealers have installed Pretech's steering systems, control cables and control levels in their boats and equipment.

Pretech is committed to develop new and innovative products and customer satisfaction is the highest priority.

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STEERING SYSTEM

steerflex

ZTS Rotary Steering System



3000 Rotary Steering System



LT Rotary Steering System



2000 Rack Steering System



COMPLETE STEERING SYSTEM

Components

- ZTS Rotary Steering Helm
 - a. ZTS Rotary Single Helm
 - b. ZTS Rotary Dual Helm
- Mounting Bezel
 - a. 90° Black Bezel
 - b. 20° Black Bezel
- Steering Cable
 - a. Pinnacle Rotary Steering Cable (Stainless Steel)
 - b. Rotary Steering Cable (Galvanized)
- Tilt System

Components

- 3000 Rotary Steering Helm
 - a. 3000 Rotary Single Helm
 - b. 3000 Rotary Dual Helm
- Mounting Bezel
 - a. 90° Black Bezel
 - b. 20° Black Bezel
- Steering Cable
 - a. Pinnacle Rotary Steering Cable (Stainless Steel)
 - b. Rotary Steering Cable (Galvanized)
- Tilt System

Components

- LT Rotary Steering Helm
- LT Rotary 90° Bezel Kit
- LT Rotary Steering Cable
(20° Bezel Kit is not available)

Components

- 2000 Rack Steering Helm
 - a. 2000 Rack Single Helm
 - b. 2000 Rack Dual Helm
- Mounting Bezel
 - a. 90° Black Bezel
 - b. 20° Black Bezel
- Rack Steering Cable
- Tilt System

ZTS ROTARY STEERING SYSTEM

steerflex

The Zero Torque System (ZTS) is designed to withstand the external forces such as sudden current change, propeller's torque and waves while driving the boat. ZTS eliminates torque coming from the steering cable with a uniquely patented design of the torque clutch.

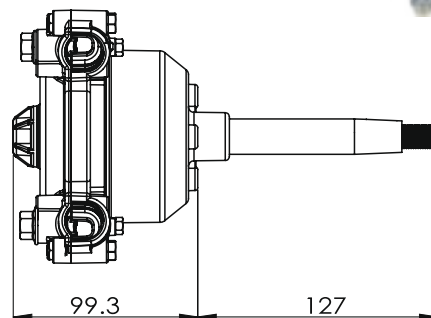
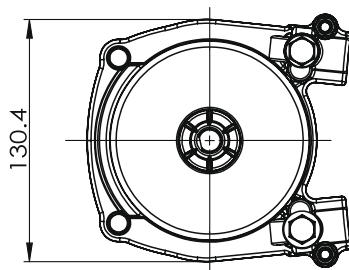
Application Guide

- Mechanical rotary steering non-power assisted outboard engine up to V-4.
- Standard 3/4" tapered shaft.
Approximately 3.8 turning revolution from lock to lock.
- Maximum wheel size : 16" (406.4 mm) diameter.
- Minimum steering cable bend radius : 8" (203.2 mm).
- Should not be used on boats equipped with engines that exceed the maximum horse power rating of the boat.
- Bolt-in replacement for our standard 3000 Rotary Steering System.
- Replace/Upgrade the following competitors' helms :
SeaStar Solutions® : Safe-T® QC, Safe-T®, NFB™ 4.2 NFB™ Safe-T™ II
Uflex® : T71FC, T73NR FC



Features & Specification

- Patented ZTS (Zero Torque Steering) System.
- ZTS system substantially minimizes torque from engine.
- Optional stainless steel steering cable construction : output ends and inner core.
- Snap-on bezel with minimum tools required.
- Compact size and easy installation.
- Bolt-in replacement (upgrade) for our standard 3000 Rotary Steering System.
- Can generally be used on boats up to 25ft. in length.
- Manufactured to meet or exceed A.B.Y.C., N.M.M.A., I.M.C.I.(CE) certification requirements.



ZTS Rotary Steering System



*Steering cable available in lengths from 5~30ft, in 1 ft. increments

③ 700040



⑥ 700050



④ 500012



⑤ 500014



① 5500XX



② 4620XX



⑦ 370297



⑧ 370002



⑨ 370004



Part No.	Description
Complete system – Include helm, cable and 90° bezel	
5600XX	ZTS Pinnacle Rotary Steering System
5100XX	ZTS Rotary Steering System (Standard)
Components	
① 5500XX	Pinnacle Rotary Steering Cable (Stainless Steel)
② 4620XX	Rotary Steering Cable (Galvanized)
③ 700040	ZTS Rotary Single Helm
④ 500012	90° Bezel Kit (Black)
500016	ZTS Rotary Single Helm + 90° Bezel Kit (Black) = [③+④]
Options	
⑤ 500014	20° Bezel Kit (Black)
⑥ 700050	ZTS Rotary Dual Helm
Accessories	
⑦ 370297	Spent Core Tube
⑧ 370002	3000/ZTS Rotary Helm Hardware Kit (5/8-18 Thread)
370002-N	3000/ZTS Rotary Helm Hardware Nut Only (5/8-18 Thread)
⑨ 370004	3000/ZTS Rotary Helm Hardware Kit (1/2-20 Thread)
370004-N	3000/ZTS Rotary Helm Hardware Nut Only (1/2-20 Thread)

3000 ROTARY STEERING SYSTEM

steerflex

COMPLETE STEERING SYSTEM

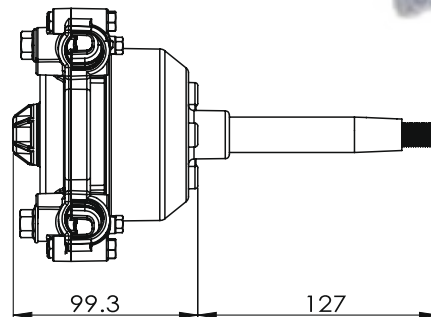
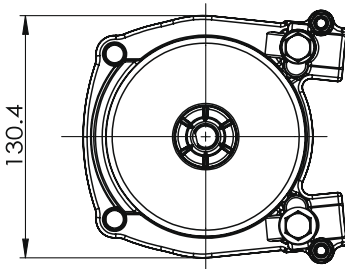
Application Guide

- Can generally be used on boats up to 25ft. in length.
- For single station use only.
- Maximum wheel size : 16" (406.4 mm) diameter.
- Should not be used on boats equipped with engines that exceed the maximum horse power rating of the boat.
- Replace/Upgrade the following competitor's helm :
SeaStar Solutions® : Safe-T® QC, Safe-T®
Uflex® : T71FC



Features & Specification

- Smoother operation and durable with planetary gear design.
- Snap-on bezel with minimum tools required.
- 3.8 turning revolutions from lock to lock.
- Standard 3/4" tapered shaft.
- Compact size with maximum performance.
- Minimal feedback.
- Manufactured to meet or exceed A.B.Y.C., N.M.M.A., I.M.C.I.(CE) certification requirements.



3000 Rotary Steering System



*Steering cable available in lengths from 5~30ft, in 1 ft. increments

① 5500XX



② 4620XX



⑦ 370297



③ 700010



⑥ 700020



④ 500012



⑤ 500014



⑧ 370002



⑨ 370004



Part No.	Description
Complete system – Include helm, cable and 90° bezel	
3150XX	3000 Pinnacle Rotary Steering System
3180XX	3000 Rotary Steering System
Components	
① 5500XX	Pinnacle Rotary Steering Cable (Stainless Steel)
② 4620XX	Rotary Steering Cable (Galvanized)
③ 700010	3000 Rotary Single Helm
④ 500012	90° Bezel Kit (Black)
500015	3000 Rotary Single Helm + 90° Bezel Kit (Black) = [③+④]
Options	
⑤ 500014	20° Bezel Kit (Black)
⑥ 700020	3000 Rotary Dual Helm
Accessories	
⑦ 370297	Spent Core Tube
⑧ 370002	3000/ZTS Rotary Helm Hardware Kit (5/8-18 Thread)
370002-N	3000/ZTS Rotary Helm Hardware Nut Only (5/8-18 Thread)
⑨ 370004	3000/ZTS Rotary Helm Hardware Kit (1/2-20 Thread)
370004-N	3000/ZTS Rotary Helm Hardware Nut Only (1/2-20 Thread)

NEW LT ROTARY STEERING SYSTEM



New LT Rotary Steering System is ideal for boats under 18ft (4.74m) with a motor not exceeding 60 horsepower

Application Guide

- Single helm with 90 degree mounting only
- Cable travel : 9" (230 mm)
- Wheel turns 2.6 lock to lock Cable travel : 9" (230mm)
- Maximum wheel size : 15" (371 mm) diameter
- Minimum bend radius : 8" (203.2 mm)
- Maximum cable bend radius : 360 degree

Features

- Patented ZTS (Zero Torque System) System. – NLT ZTS Helm
- HD cast machined gear drive
- Can generally be used on boats up to 20ft. in length. – NLT ZTS Helm
- Choice of cable entry for easy installation
- Compact design for quick installation

1 2090XX



2 2500XX



3 260301



4 260300



5 260302



Part No.	Description
Complete system – Include helm, cable and 90° bezel	
1 2090XX	New LT Rotary Steering System Package
2070XX	New ZTS LT Rotary Steering System Package
Components	
2 2500XX	LT Rotary Steering Cable Only
3 260301	New LT Rotary Steering Helm
4 260300	New ZTS LT Rotary Steering Helm
5 260302	New LT Rotary 90° Bezel Kit * 20 Degree Bezel Kit is not available
260303	New LT Rotary Steering Helm with 90° Bezel Kit
260304	New ZTS LT Rotary Steering Helm with 90° Bezel Kit

2900 ROTARY STEERING SYSTEM

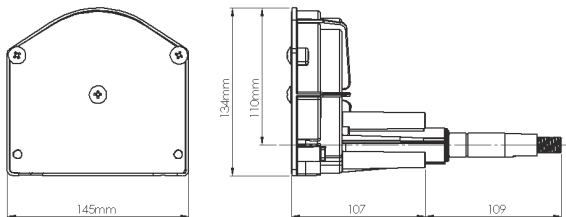
steerflex

Application Guide

- Generally 2900 Steerflex can be used on boats up to 25ft. in length.
- 2900 Steerflex should NOT be used on boats equipped with engines that exceed the maximum horsepower rating of the boat.
- Maximum allowable steering wheel diameter is 16 inch (406.4mm).

Features

- Compact, quick, and easy installation.
- 3 turning revolutions from lock to lock.
- Snap-on bezel with minimum tools required.
- Standard 3/4" tapered shaft.
- Manufactured to meet or exceed A.B.Y.C., N.M.M.A., I.M.C.I. (CE) certification requirements.



1 3080XX



2 370525



3 370559



4 5090XX



5 370561



Part No.	Description
Complete System – Include helm, cable & 90° bezel kit	
1 3080XX	2900 Steerflex Rotary Steering System
Components	
2 370525	2900 Rotary Steering Helm
3 370559	2900 90° Bezel Kit
4 5090XX	Rotary Steering Cable
370562	2900 Rotary Steering Helm + 2900 90° Bezel Kit = [2+3]
Options	
5 370561	2900 20° Bezel Kit
Accessories	
370005	2900 Rotary Helm Hardware Kit (1/2-20 Thread Shaft)
370297	Spent Core Tube

TILT SYSTEM

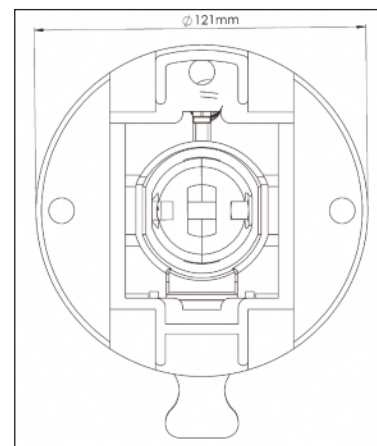
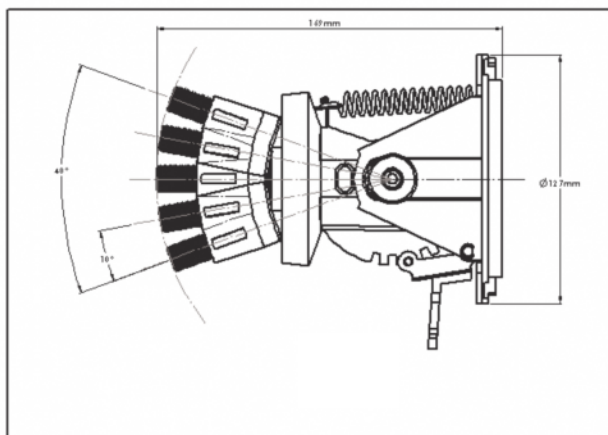
Pretech's tilt helm assembly is designed for boaters seeking what only a five way adjustable helm assembly can offer, freedom, flexibility and comfort. With its full 40 degree range of motion, the steering wheel can now be adjusted to you, not you to the steering. Modern boat cockpit styling makes tilts a perfect blend.

Application Guide

- Maximum wheel size : 16" diameter
- Shaft size : Stainless Steel 3/4" tapered shaft
- Use with ZTS Rotary, 3000 Rotary, 2000 Rack or 2900 Rotary tilt helm

Features & Specification

- 5 tilt positions within 40 degree range.
- 90 degree mounting allow first wheel position to be at vertical.
- Standard black boot comes with tilt mechanism.
- Meets/Exceeds applicable requirements.



① 370979



② 700042/700012



③ 700052/700022



④ 370974



⑤ 370975



⑥ 370990



Part No.	Description
① 370979	Tilt Mechanism Unit Only (with S.S. shaft)
TILT HELM ONLY	
② 700042	ZTS Rotary Single Tilt Helm
700012	3000 Rotary Single Tilt Helm
③ 700052	ZTS Rotary Dual Tilt Helm
700022	3000 Rotary Dual Tilt Helm
④ 370974	2000 Rack Single Tilt Helm
⑤ 370975	2000 Rack Dual Tilt Helm
⑥ 370990	2900 Rotary Single Tilt Helm
Boot	
370999	Black Boot - Standard

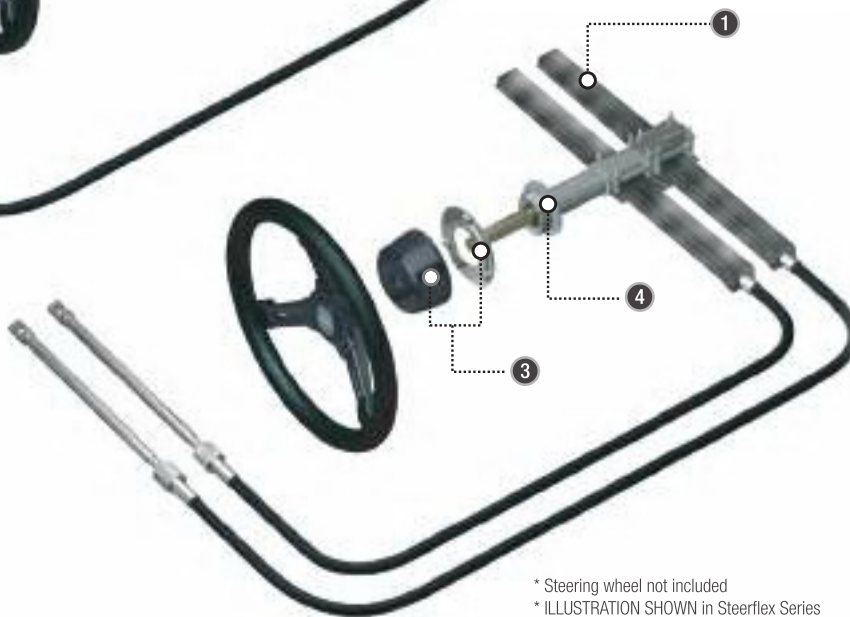
2000 RACK & PINION STEERING SYSTEM



SINGLE CABLE STEERING



TWIN CABLE STEERING



* Steering wheel not included
* ILLUSTRATION SHOWN in Steerflex Series

Application Guide

- Can generally be used on boats up to 25ft. in length.
- Should not be used on boats equipped with engines that exceed the maximum horse power rating of the boat.
- Maximum allowable steering wheel diameter is 16" (406.4 mm) diameter.
- Dual cable system is recommended for boats whose maximum speed exceeds 50 mph.
- For single station use only.

Features

- 3.5 turning revolutions from lock to lock.
- Smoother and easier operation with less loss of motion.
- Standard galvanized steering cable.
- Standard 3/4" tapered shaft.
- Dual cable system minimize steering instability at high speed.
- Quick and easy installation.
- Manufactured to meet or exceed A.B.Y.C., N.M.M.A., I.M.C.I.(CE) certification requirements.
- Suitable for power-assisted stern drive, inboard or ski boat.

2000 Rack Steering System



*Steering cable available in lengths from 5~30ft. in 1 ft. increments

② 370252



④ 370853



⑤ 370974



⑥ 370975



③ 370519



⑦ 370470



① 3500XX



Part No.	Description
Complete system – Include helm, cable and 90° bezel	
3100XX	2000 Rack Steering System 3000 Gen II Rotary Steering System
Components	
① 3500XX	Rack Steering Cable (Galvanized)
3500XX	Rack Steering Cable (Galvanized) - Requires 2 cables for Dual Helm
② 370252	2000 Rack Single Helm
③ 370519	90° Bezel Kit (Black)
Options	
*Requires tilt mechanism (370979) to complete tilt steering system installation (Page 12)	
④ 370853	2000 Rack Dual Helm
⑤ 370974	2000 Rack Single Tilt Helm *
⑥ 370975	2000 Rack Dual Tilt Helm *
⑦ 370470	20° Bezel Kit (Black)

REPLACEMENT STEERING CABLE



Part No. Replacement Steering Cable

5090XX UR Rotary Replacement Steering Cable

5020XX UR Pinnacle Rotary Replacement Steering Cable (S.S.)

3500XX 2000 Rack Steering Cable (Galvanized)

1240XX TX Rack Single Steering Cable

1340XX TX Back Rack Steering Cable

1350XX TX Dual Back Rack Steering Cable



Suitable Helms

Pretech 3000 Rotary Single/Dual Helm (700010 / 700020)
ZTS Rotary Single/Dual Helm (700040 / 700050)

SeaStar Solutions® Safe-T® QC, NFB™ 4.2, NFB™ Safe-T II

Ultraflex® T7FC, T72FC, T73NR FC, T81FC, T82FC, T83NRFC

Suitable Helms

Pretech 3000 Rotary Single/Dual Helm (700010 / 700020)
ZTS Rotary Single/Dual Helm (700040 / 700050)

SeaStar Solutions® Safe-T® QC, NFB™ 4.2, NFB™ Safe-T II

Ultraflex® T7FC, T72FC, T73NR FC, T81FC, T82FC, T83NRFC

Suitable Helms

Pretech 370252, 370853 (2ea), 370974, 370975 (2ea)

SeaStar Solutions® Morse® Command 200 Rack
Morse® Dual Rack Cable (2ea)
300620 or 300619 Cable, SSC130XX

Suitable Helms

Pretech N/A

SeaStar Solutions® "The Rack"(Rack&Pinion) - Std.SH5098P
"The Rack" Dual Cable System - Std.SH5097P (2ea)
SSC124XX

Suitable Helms

Pretech N/A

SeaStar Solutions® "The Rack"(Back Mount) : SS141XX - Std.SH5210P,
Tilt SH91610P
NFB™ Rack(Back Mount) : SS151XX - Std.SH5230P,
Tilt SH91630P, SSC134XX, SSC154XX

Suitable Helms

Pretech N/A

SeaStar Solutions® "The Rack" (Back Mount) 2 Cable - Std.5210P,
Tilt SH91610P
NFB™ Pro (Back Mount) Dual Cable System :
152XX - Std.SH5230P, Tilt SH91630P, SSC135XX

