

aquadrive[®] antivibration system

The traditional, rigid engine installation...

In traditional installations, the engine must be very precisely aligned to the propeller shaft. The thrust of the propeller has to be absorbed by the engine and its mounts. These restrictions demand very stiff mounts which transmit high levels of vibration to the hull.

...or superior engineering through Aquadrive[®]

The Aquadrive[®] anti-vibration system eliminates the need for stiff, hard mounts and for careful engine alignment to the propeller shaft. Instead, the propeller shaft is aligned to an Aquadrive[®] thrust bearing which absorbs all the propeller thrust and stabilizes the alignment. CV-joint shafts transmit engine power to the thrust-bearing and propeller shaft while allowing engine movements in every direction. Super-soft Aquadrive[®] engine-mounts isolate nearly all vibration from the hull and create the necessary conditions for a smooth and quiet boat.

Easier engine installations and permanent alignment

Aquadrive[®] systems utilize CV-shafts to allow extreme misalignment and engine movement. The system automatically adjusts to any changes in alignment between the engine and thrust bearing. Unlike standard marine engine installations, alignment is more easily accomplished and should not require periodic adjustments.

Torsional damping and Aquadrive[®] systems

Soft, flexible rubber elements are normally installed between the engine flywheel and gearbox to avoid torsional vibration. Aquadrive[®] CV-shafts can be directly coupled to those gearboxes without additional rubber or flexible elements. For flywheel-mounted installations, Aquadrive[®] torsional rubber dampers combined with CV-shafts (CVT-units) are available in a full range of power applications involving remote-mounted propulsion equipment, such as water-jets, stern drives and remote v-drives.

AQUADRIVE SYSTEM

CV SHAFT

The drive shaft of variable length includes two true plunging Constant Velocity joints that work independently at any angle. This eliminates the need for accurate engine alignment, either during initial installation or subsequent use. The rolling action of the balls within the CV joints absorb all axial and radial loads, permitting the use of very soft engine mounts as well as reducing wear in connected bearings. A range of pre-machined adapter kits allows coupling to almost any marine gearbox.

THRUST BEARING

Aquadrive thrust bearing with rubber mounts attach to a cross brace in the hull. Massive bearings transfer the thrust directly to the hull and not the engine. In addition, the propeller shaft is much better supported, leading to smoother running and less wear on the stern seal.

ENGINE MOUNTS

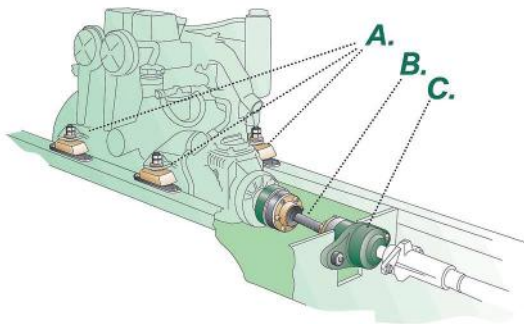
Aquadrive's proven engine mounts are softer than almost any other and should be used to take full advantage of the system. These mounts are steel hooded to prevent diesel damage and fully captive so that the engine cannot leave its frame even if the vessel is turned over.





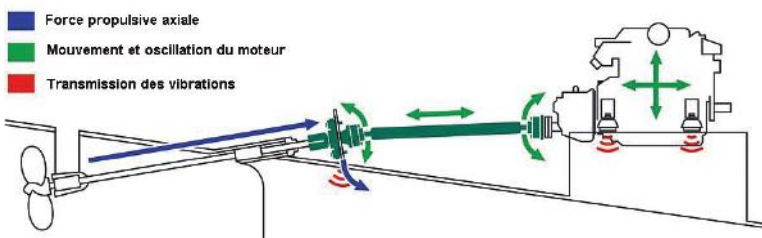
Outstanding technology to improve boats worldwide

Aquadrive offers fourteen different models designed to match boats powered from 5hp to 2000 hp, we have a system that's right for nearly any boat. Whether you are a professional marine engine installer or an enlightened boat owner, we can help you find the system that's right for your boat.



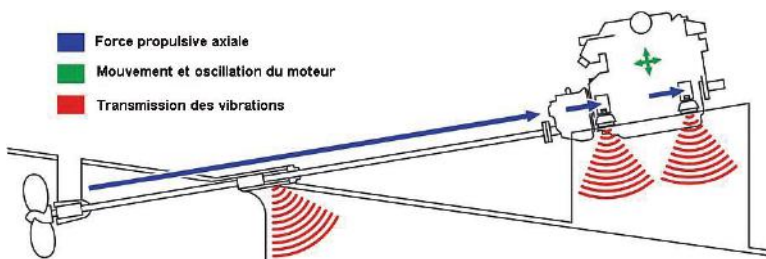
- A. Les supports de fixation souples isolent le moteur de la carène.
- B. L'arbre CV absorbe les vibrations du moteur et élimine le besoin de réalignement périodique.
- C. La butée réduit les efforts et torsions sur la transmission, les supports de fixation moteur, et en particulier, sur les roulements moteurs.

WITH AQUADRIVE



With Aquadrive the engine can be installed in a horizontal position using soft and efficient mounts. Apart from easy installation and permanent alignment, this also leads to better space utilisation while dramatically reducing vibration and noise.

WITHOUT AQUADRIVE



In traditional installations, the alignment of the propeller shaft to the engine has to be precise and subject to periodical maintenance. Stiff mounts transmit high levels of vibration to the hull, even when perfectly aligned.

How choose your Aquadrive

- 1) Select the CV Shaft..
- 2) Select the thrust bearing.
- 3) Select the adaptator in function of the gearbox.
- 4) Select the engine mounts.

Which data do we need?

- Boat type
- Engine (Power, maximum RPM).
- Gearbox model with its ratio
- Propeller Shaft diameter
- Desired angle between the gearbox and the shaft.
- Boat use: Pleasure or professional and average hours of use per year.



CONSTANT VELOCITY (CV) SHAFT

CV Shaft	Length (mm)	Ext. Ø (mm)	Max. angle allowed per shaft	Reference
CV05	130 ± 16	86	8 °	ACCAQCV05
CV10	154 ± 16	97	8 °	ACCAQCV10
CV15	170 ± 16	111	8 °	ACCAQCV15
CV21	210 ± 24	132	8 °	ACCAQCV21
CV30	245 ± 25	152	8 °	ACCAQCV30
CV32	300 ± 25	180	8 °	ACCAQCV32
CV42	270 ± 24	192	8 °	ACCAQCV42
CV60	370 ± 30	275	8 °	ACCAQCV60



Other dimensions on request



AQUADRIVE THRUST BEARING

Thrust Bearing	Shaft Ø (mm)	CV Shaft	Reference
B05	22	CV05	ACCAQB6100202
B05	25	CV05	ACCAQB6100204
B05	30	CV05	ACCAQB6100207
B10	22	CV05	ACCAQB6110202
B10	25	CV05	ACCAQB6110204
B10	30	CV05	ACCAQB6110207
B10	25	CV10	ACCAQB6110304
B10	30	CV10	ACCAQB6110307
B10	35	CV10	ACCAQB6110310
B10	30	CV15	ACCAQB6110407
B10	35	CV15	ACCAQB6110410
B10	40	CV15	ACCAQB6110412
B10	35	CV21	ACCAQB6110510
B10	40	CV21	ACCAQB6110512
B20	40	CV21	ACCAQB6120512
B20	45	CV21	ACCAQB6120514
B20	50	CV21	ACCAQB6120516
B20	40	CV30	ACCAQB6120612
B20	45	CV30	ACCAQB61614
B20	50	CV30	ACCAQB61616
B30	40	CV32	ACCAQB6130712
B30	45	CV32	ACCAQB6130714
B30	50	CV32	ACCAQB6130716
B30	45	CV42	ACCAQB6130814
B30	50	CV42	ACCAQB6130816
B30	60	CV42	ACCAQB6130820
HDL680	50	CV42	ACCAQB6039205
HDL680	60	CV42	ACCAQB6039209
HDL680	70	CV42	ACCAQB6039212
HDL780	Thrust plate	CV60	ACCAQB6039519

Thank you to consult us to help you choose your system



Other dimensions on request





ADAPTATORS

CV Shaft	Gearbox Type	Reference
CV05	VOLVO MS	ACCAQA6040208
CV05	YANMAR KM 2P/3P	ACCAQA6040201
CV05	ZF /TMC 4"	ACCAQA6040207
CV10	VOLVO MS	ACCAQA6040361
CV10	YANMAR KM 2P/3P	ACCAQA6040365
CV10	ZF /TMC 4"	ACCAQA6040362
CV10	ZF /TMC 5"	ACCAQA6040364A
CV15	VOLVO MS	ACCAQA6040403
CV15	YANMAR KM / KBW	ACCAQA6040405
CV15	ZF /TMC 4"	ACCAQA6040400A
CV15	ZF /TMC 5"	ACCAQA6040401A
CV21	YANMAR KM / KBW	ACCAQA6040462A
CV21	ZF /TMC 4"	ACCAQA6040453
CV21	ZF /TMC 5" - MS3/4	ACCAQA6040450A
CV30	ZF / PRM	ACCAQA6040502
CV30	ZF / VOLVO / YANMAR	ACCAQA6040514
CV32	ZF / TWIN DISC	ACCAQA6040756
CV32	ZF / VOLVO / YANMAR	ACCAQA6040750R
CV42	ZF / TWIN DISC	ACCAQA6040700R
CV42	ZF / IRM / TWIN DISC	ACCAQA6040701
CV60	IRM / TWIN DISC	ACCAQA6040656
CV60	IRM / TWIN DISC	ACCAQA6040662R



Other dimensions on request

CUSTOM CV SHAFT TO WELD

CV Shaft	Minimum Length in mm	Reference
CV10	260 ± 16	ACCAQCVAS10
CV15	270 ± 16	ACCAQCVAS15
CV21	280 ± 24	ACCAQCVAS21
CV30	340 ± 25	ACCAQCVAS30
CV32	420 ± 25	ACCAQCVAS32
CV42	430 ± 24	ACCAQCVAS42
CV60	700 ± 30	ACCAQCVAS60



Other dimensions on request



AQUADRIVE ENGINE MOUNTS

The Aquadrive system creates free movement between the engine and the propeller shaft. One result is the engine's mountings can be much softer than normal, partly because the engine can vibrate freely relative to the shaft, and partly because no propeller thrust reaches the mounts and strains them forwards. Aquadrive engine mounts can be used with almost any marine engine, and our expert staff will rapidly select the correct rubber stiffness for the machinery involved.

Hardness Shore	Maximum weight allowed	Stud Ø	Reference
SERIE 210			
40	60 Kg	M12	ACCAQSM210
45	60 Kg	M12	ACCAQSM211
55	60 Kg	M12	ACCAQSM212
65	60 Kg	M12	ACCAQSM213
SERIE 220			
35	150 Kg	M16	ACCAQSM220
45	150 Kg	M16	ACCAQSM221
55	150 Kg	M16	ACCAQSM222
65	150 Kg	M16	ACCAQSM223
75	150 Kg	M16	ACCAQSM224
SERIE 230			
45	500 Kg	M20	ACCAQSM231
55	500 Kg	M20	ACCAQSM232
65	500 Kg	M20	ACCAQSM233
75	500 Kg	M20	ACCAQSM234
SERIE 240			
40	2000 Kg	M24	ACCAQSM240
50	2000 Kg	M24	ACCAQSM241
60	2000 Kg	M24	ACCAQSM242
70	2000 Kg	M24	ACCAQSM243



Other dimensions on request