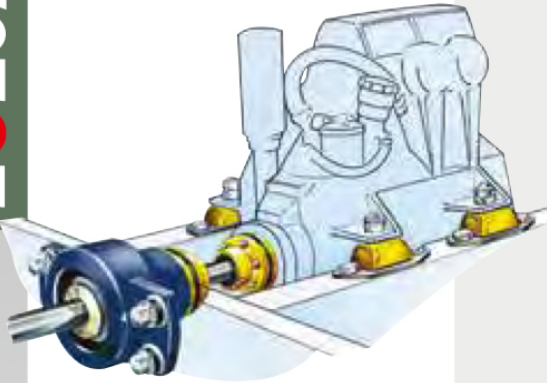


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**CV-drive
Shaft systems**

Features:

- A propulsion system which reduces noise and vibrations up to 90%
- Simplifies engine/gearbox installations significantly
- Alignment procedure is very easily accomplished due to self-aligning propeller shaft clamp hub in thrust bearing
- Can handle angular misalignments of up to 2 x 8°
- CV drive shaft of variable length with two true plunging Constant Velocity joints working independently at any angle
- Solid thrust bearing transfers massive propulsion thrusts directly to the hull and not to the engine thus providing the possibility of softer flexible engine mounts
- Thrust bearing coupling is fastened to the plain cylindrical propeller shaft by means of a securely dimensioned clamping hub

A complete system consists of: CV-Drive Shaft, Thrust Bearing and Gearbox Adapter according to measure (see page 549) as well as bolts, nuts and rings, while the kit price is fixed.

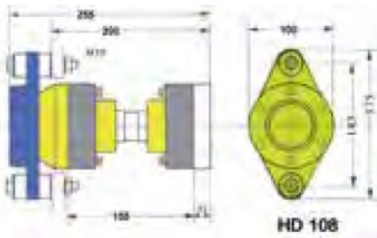
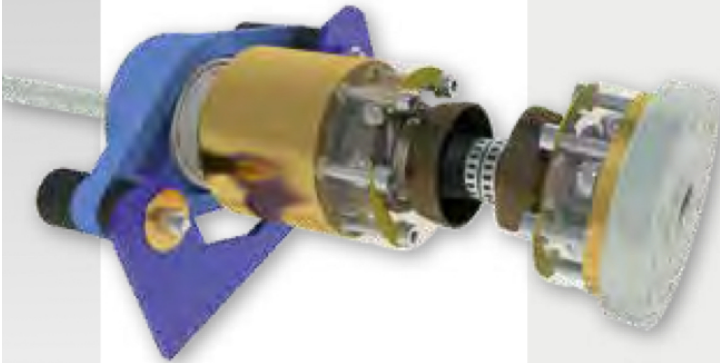
When ordering, please state engine power and max. rpm, brand of gearbox, type and ratio, hole centre and centering ring of the output flange and the propeller shaft diameter.

Note: The given max. values for torque and propeller thrust are meant for pleasure craft with less than 100 hours at full load.

For commercial applications 60-80% of the given values should be considered as max. load.

Max. installation angle is related to propeller shaft rpm:

- 8° angle per joint => max 1200 rpm
- 6° angle per joint => max 1500 rpm
- 5° angle per joint => max 2000 rpm



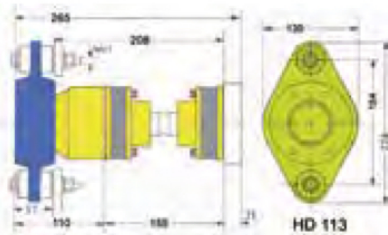
Type HD-108

suitable for engine powers up to ± 50hp

- Max. propeller thrust 4300N
- Max. shaft torque 485Nm
- Max. shaft rpm: 5000
- Length CV-shaft: 155 ± 25mm
- Propeller shaft diameters: 20, 25, 30mm & 1", 1-1/4"
- Propeller shaft depth in thrust bearing: 60mm

Item Code 099500

Set HD-108 with thrust bearing, CV-shaft and adapter flange



Type HD-113

suitable for engine powers up to ± 80hp

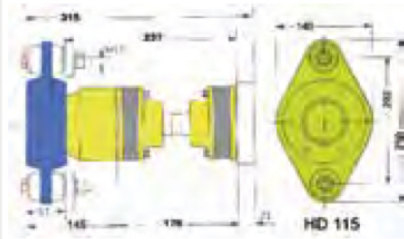
- Max. propeller thrust 10500N
- Max. shaft torque 690Nm
- Max. shaft rpm: 5000
- Length CV-shaft: 155 ± 25mm
- Propeller shaft diameters: 30, 35, & 40mm
- Propeller shaft depth in thrust bearing: 90mm

Item Code 099505

Set HD-113 with thrust bearing, CV-shaft and adapter flange

suitable for engine powers up to ± 90hp

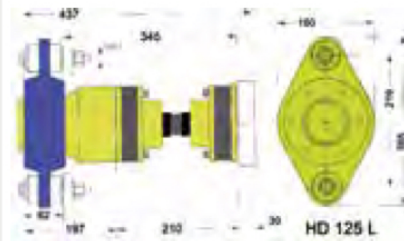
- Max. propeller thrust 12500N
- Max. shaft torque 800Nm
- Max. shaft rpm: 5000
- Length CV-shaft: 170 ± 25mm
- Propeller shaft diameters: 35, 40, 45 & 50mm
- Full planing vessels: up to 135HP
- Propeller shaft depth in thrust bearing: 110mm

**Type HD-115L**

Item Code 099510 Set HD-115L with thrust bearing, CV-shaft and adapter flange

a-flex**suitable for engine powers up to ± 170hp**

- Max. propeller thrust 18000N
- Max. shaft torque 1100Nm
- Max. shaft rpm: 4000
- Length CV-shaft: 210 ± 40mm
- Propeller shaft diameters: 35, 40, 45, 50 & 55mm
- Full planing vessels: up to 220HP

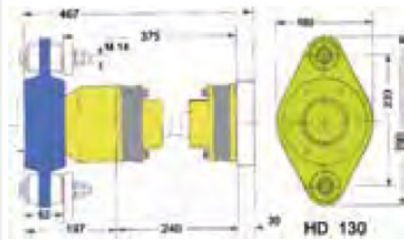
**Type HD-125**

Item Code 099515

Set HD-125 with thrust bearing, CV-shaft and adapter flange

a-flex**suitable for engine powers up to ± 250hp**

- Max. propeller thrust 25000N
- Max. shaft torque 1800Nm
- Max. shaft rpm: 4000
- Length CV-shaft: 240 ± 45mm
- Propeller shaft diameters: 40, 45, 50, 55 & 60mm
- Full planing vessels: up to 320HP

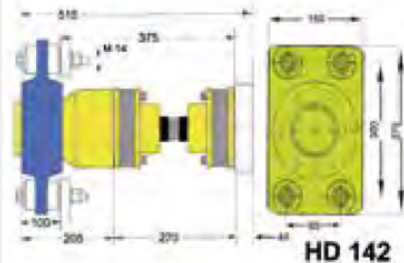
**Type HD-130**

Item Code 099520

Set HD-130 with thrust bearing, CV-shaft and adapter flange

a-flex**suitable for engine powers up to ± 350hp**

- Max. propeller thrust 38000N
- Max. shaft torque 3300Nm
- Max. shaft rpm: 4000
- Length CV-shaft: 275 ± 45mm
- Propeller shaft diameters: 40, 45, 50, 55, 60, 70, 80mm
- Full planing vessels: up to 475HP

**Type HD-142**

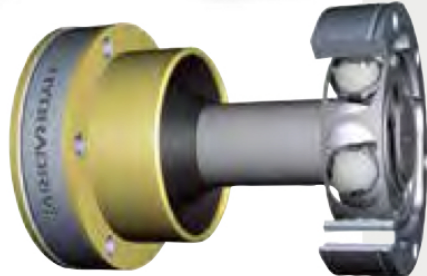
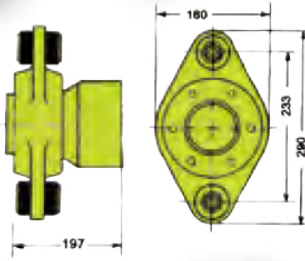
Item Code 099525

Set HD-142 with thrust bearing, CV-shaft and adapter flange

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Anti Vibration System

Max. installation angle is related to propeller shaft rpm:

- 8° angle per joint => max 1200 rpm
- 6° angle per joint => max 1500 rpm
- 5° angle per joint => max 2000 rpm
- 4° angle per joint => max 2500 rpm
- 3° angle per joint => max 4000 rpm
- 2° angle per joint => max 8000 rpm

Separate, self-aligning Thrust Bearings:

Shaft	Model 108	Model 113	Model 115L	Model 125	Model 130	Model 142
Ø mm	Item Code	Item Code	Item Code	Item Code	Item Code	Item Code
20	099600	---	---	---	---	---
22	099603	---	---	---	---	---
25	099601	---	---	---	---	---
30	099602	099610	---	---	---	---
35	---	099611	099620	099630	---	---
38,1	---	---	---	099629	---	---
40	---	099612	099621	099631	099640	---
45	---	---	099622	099632	099641	099648
50	---	---	099623	099633	099642	099647
55	---	---	---	099634	099643	---
60	---	---	---	---	099644	099650

CV-Joint Shafts:

- Item Code 099700** Model 108 & 113, length 155± 25mm
Outer ø103mm, pitch ø85mm
- Item Code 099710** Model 115, length 170 ± 25mm
Outer ø109.5mm, pitch ø95mm
- Item Code 099715** Model 125,length 210 ± 40mm
Outer ø130mm, pitch ø108mm
- Item Code 099720** Model 130, length 245 ± 45mm
Outer ø150mm, pitch ø125mm
- Item Code 099723** Model 142, Length 270 ± 45mm
Outer Ø213mm, Pitch Ø165mm

Gearbox Adapters: (see p. 555)!

A large number of different adapters is available for Techno-drive, Twin Disc, Hurth, PRM, Volvo, Yanmar, Velvet, Paragon etc. Most of them are standard stock.; some are made upon request.

- Item Code 099740** 4", centre Ø63,5mm, pitch Ø82,5mm, for model 108 & 113
- Item Code 099741** 5", centre Ø63,5mm, pitch Ø108mm, for model 115
- Item Code 099742** 5", centre Ø63,5mm, pitch Ø108mm, for model 125

Calculating the Propeller Shaft Torque:

(Max.HP : Max. Rpm) x 7120 x Gearbox Ratio = Max. propeller Shaft Torque (Nm)

Calculating the Propeller Thrust:

Max. HP x 80 = Propeller Shaft Thrust (N), where factor '80' concerns an average value



a-flex Selection Table Gearbox Adapters		Gearbox brand:						CV-joint model						Remark
		Flange outer Ø (")	Flange outer Ø (mm)	A: No. of holes	B: Hole diameter (mm)	C: Hole pitch (mm)	D: Centering ring (mm)	HD108	HD113	HD115	HD125	HD130	HD142	
Blank adapter								099790	099790	099757	099761	099762	099763	
Bukh		3,54	90,00	4	8,20	74,50	47	099785	099785					Adapter flange
Buhk DV10/ZF/BW6														
Daewoo		7,25	184,15	6	14,20	152	100							
Daewoo		11,35	288,30	6	240	240	160							
Farymann		4	101,60	4	10	75	45	099756	099756					
Kanzaki KM35A/KM3P		4	101,60	4	10	78	50	099746	099746					
Kanzaki KM4A		5	127,00	4	10	100	65	099750	099750	099747				
Paragon		4	101,60	4	9,70	82,50	66,60	099767	099767	099755				
PRM, ZF/Hurth, Technodrive, Velvet, Ronim, SMI		4	101,60	4	10	82,50	63,50			099764				115-4" standard
PRM, ZF/Hurth, Technodrive, Velvet, Ronim, SMI		4	101,60	4	10	82,50	63,50	099740	099740	099751				115-tube type: L=120mm
PRM, ZF/Hurth, Technodrive, Velvet, Ronim, Volvo		5	127,00	4	11,20	108	63,50	099745	099745	099741	099742	099748		
PRM, MPM, Twin Disc, Velvet		5,75	146,05	6	12,70	120,60	76,20			099749	099752			
PRM, ZF/Hurth, MPM, Twin Disc, Velvet, Technodrive		5,75	146,05	6	16	120,60	76,20			099753	099766	099759		
PRM 750		6	152								099765			
Twin Disc		5	127,00	4	10	104,80	63,50							
Twin Disc 507 - 509		7,25	184,15	6	19	152,40	95,25							
Twin Disc		9	228,60	8	22,10	190,50	152,40							
Twin Disc		10,5	266,70	8	25,40	222	127							
Velvet, ZF/Hurth, PRM, Volvo 5"		5	127,00	4	10	108	63,50							
Volvo MS2 & MSB		4	101,60	4	10	80	60	099744	099744	099754				
Volvo (MS4A)		5	127,00	4	10	80	60							
		Replacement clamps for thrust bearings:												
		Shaft diameter 25mm		099791										
		Shaft diameter 30mm		099803										
		Shaft diameter 35mm		099798		099798		099798				099797*		
		Shaft diameter 38mm		099792		099792		099792				099797*		
		Shaft diameter 40mm		099794		099794		099794				099797*		
Shaft diameter 45mm						099796				099797*				
Shaft diameter 50mm						099797				099797				
Adapter not found ? Please contact us !		All adapters are supplied with bolts, nuts and other necessary parts												

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