

Applications for:

Fast Vessels WVS/WLS

Engine Rating up to 1,400 kW

Fast Vessels WVS/WLS

Engine Rating up to 5,000 kW

Work Boats WAF/LAF

Engine Rating up to 1,000 kW

Work Boats WAF/LAF

Engine Rating up to 3,500 kW

Work Boats WAF/LAF

Engine Rating up to 8,500 kW

Fast Ferries 600 - 13,200 kW

VLJ 430 - 9731

Work Boats VA

Engine Rating up to 6,000 kW

Work Boats DLG/DLGF

Engine Rating up to 15,000 kW

Work Boats SVA¹/SVAL²

Engine Rating¹ up to 20,000 kW

Engine Rating² up to 13,000 kW



Y O U R P A R T N E R F O R T H E F U T U R E

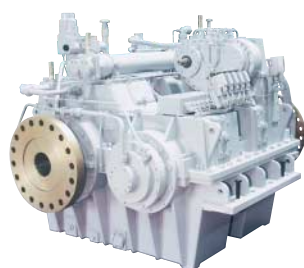


Applications for Fast Ferries

VLJ 430 - 9731



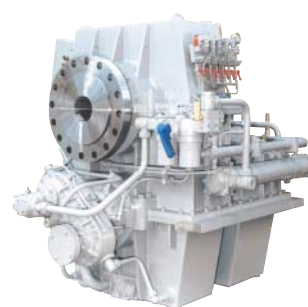
VLJ horizontally offset



VLJ horizontally offset



VLJ vertically offset



VLJ vertically offset,
special solution

Advantages

VLJ gears have been specially designed for installation in fast ferries and other vessels with similarly high performance demands.

We have the backing of over 75 years of experience in marine gears production as well as more than 25 years with fast ferry application with waterjet drives

and deploy state-of-the-art computation tools and production technologies.

Owing to their design for specific areas of deployment, the reduction gearboxes of the VLJ series offer various special advantages:

- Low performance weight due to weight-optimized design
- Compact dimensions
- Integrated hydraulic clutch with smooth engagement
- Low operating noise

Gearbox Selection

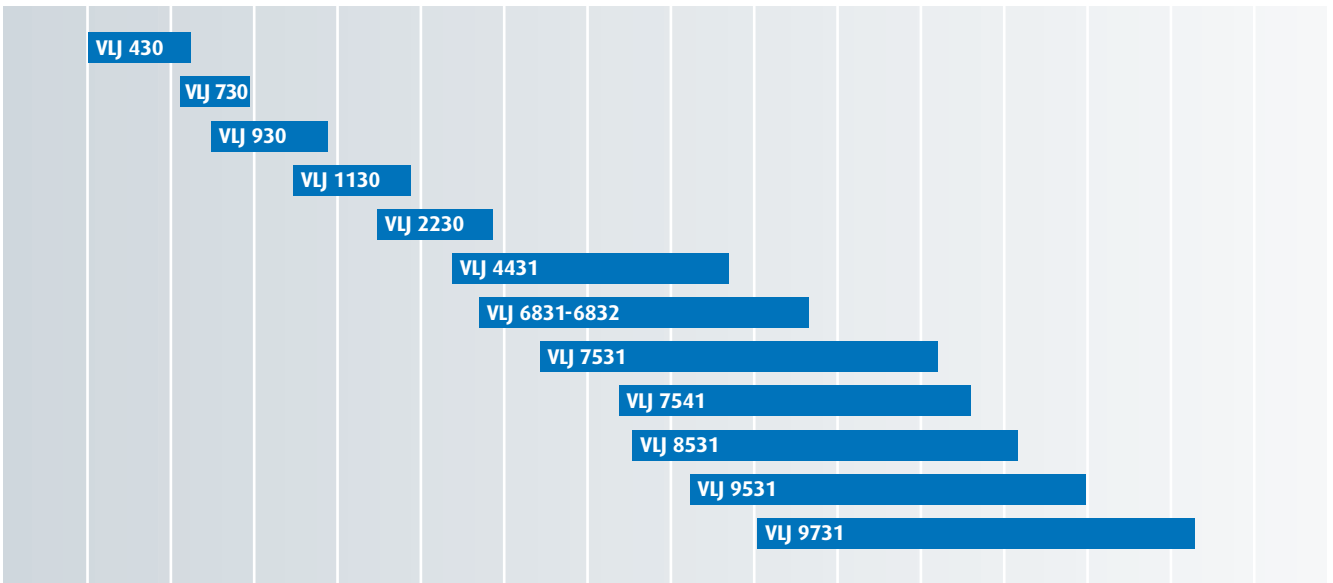
The selection diagram opposite gives an overview of the performance ratings of the basic VLJ types.

However, for the final selection of gears only the ratings of the applicable gears selection table are binding.

D E S I G N E D F O R H I G H D E M A N D S



kw	500	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000
BHP	670	1340	2680	4020	5360	6700	8040	9380	10720	12060	13400	14740	16080	17420	18760

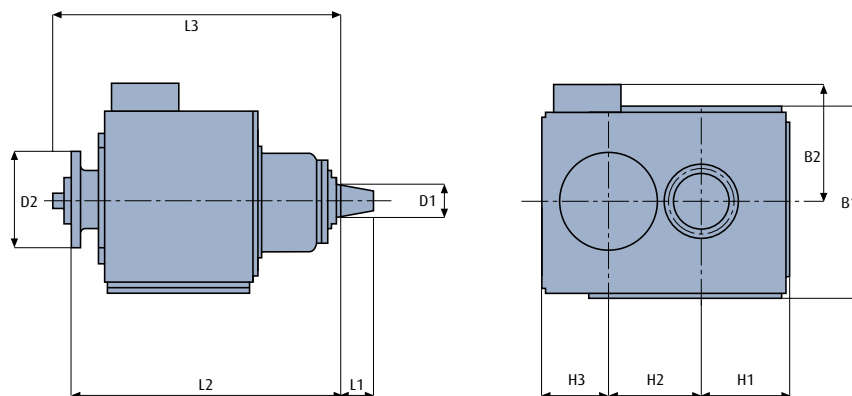


Marine gearboxes

VLJ 430 - 9731

VLJ 430 - 2230

Reduction gears with hydraulically operated clutch
Horizontally offset

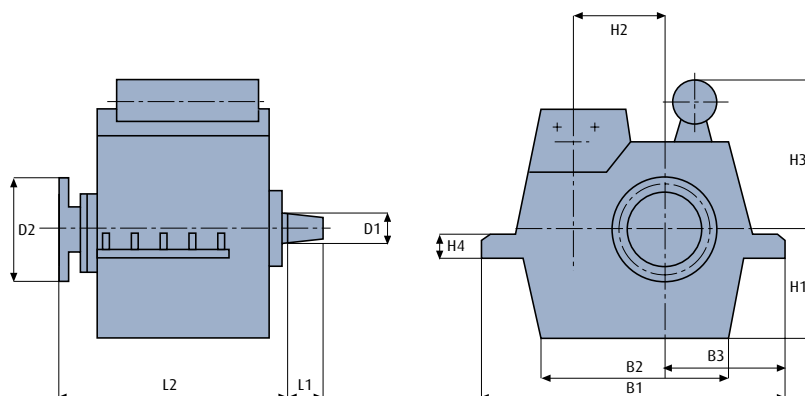


Gearbox VLJ	Main dimensions (mm)										Weight kg ¹⁾
	B1	B2	D1	D2	H1	H2	H3	L1	L2	L3	
430	540	550	75	220	270	235	185	97	686	952	360
730	640	600	92	260	325	310	220	110	795	1000	560
930	720	680	102	280	350	340	240	120	870	1125	740
1130	850	720	116,9	350	425	425	270	154	1095	1240	1300
2230	920	760	126,8	390	460	460	300	162	1150	1300	1600

¹⁾ Gearbox standard design (dry). Dimensions and weights not strictly binding. Subject to changes.

VLJ 4431 - 9731

Reduction gears with hydraulically operated clutch
Horizontally offset



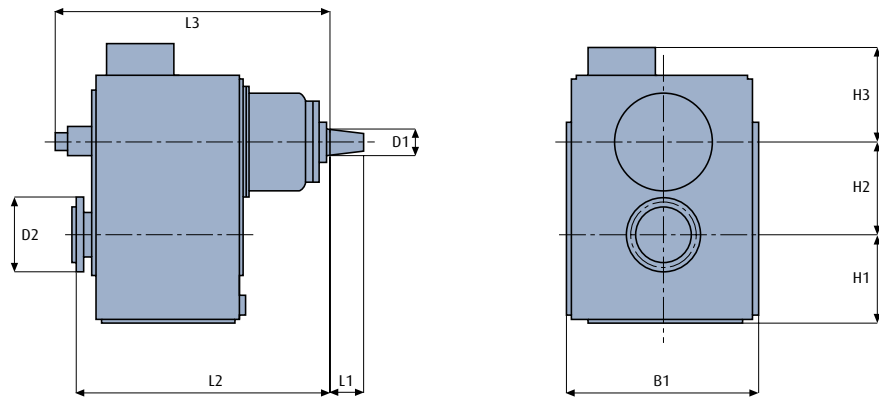
Gearbox VLJ	Main dimensions (mm)										Weight kg ¹⁾	
	B1	B2	B3	D1	D2	H1	H2	H3	H4	L1		L2
4431	1750	1050	660	186,8	550	550	560	800	180	237	1600	3500
6831	1690	1170	600	186,8	600	565	600	900	180	237	1500	3600
7531	1850	1310	680	196,8	650	600	630	990	180	251	1700	4300
7541	1920	1320	700	196,8	650	630	665	950	50	251	1550	4550
8531	Main dimensions according to customers requirements.											
9531	Main dimensions according to customers requirements.											
9731	Main dimensions according to customers requirements.											

¹⁾ Gearbox standard design (dry). Dimensions and weights not strictly binding. Subject to changes.



VLJ 430 - 2230

Reduction gears with hydraulically operated clutch
Vertically offset

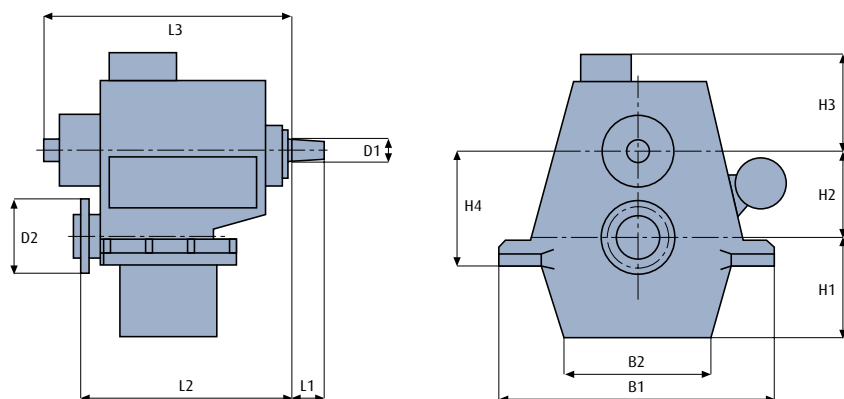


Gearbox VLJ	Main dimensions (mm)									Weight kg ¹⁾
	B1	D1	D2	H1	H2	H3	L1	L2	L3	
430	540	75	220	270	235	185	97	686	952	360
730	640	92	260	325	310	480	110	795	1000	560
930	720	102	280	350	340	500	120	870	1125	740
1130	850	116,9	350	425	425	570	154	1095	1240	1300
2230	920	126,8	390	460	460	600	162	1150	1300	1600

¹⁾ Gearbox standard design (dry). Dimensions and weights not strictly binding. Subject to changes.

VLJ 4431 - 9731

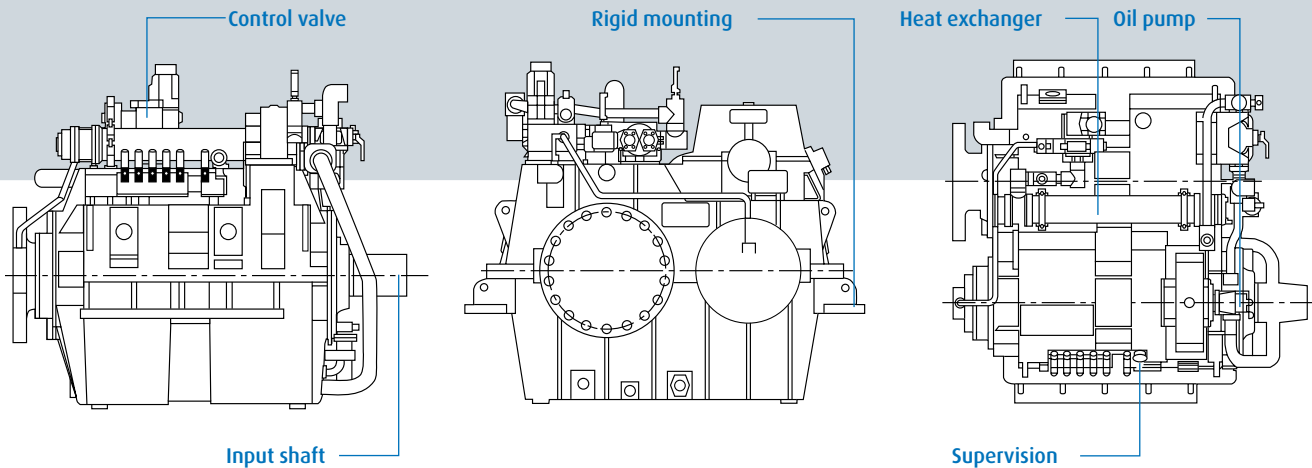
Reduction gears with hydraulically operated clutch
Vertically offset



Gearbox VLJ	Main dimensions (mm)										Weight kg ¹⁾	
	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2		L3
4431	1350	770	186,8	550	620	560	770	740	237	1600	1950	3500
6831	1400	800	186,8	600	650	600	800	780	237	1500	1850	3800
7531	1450	830	196,8	650	670	630	820	810	251	1600	1950	4300
8531	Main dimensions according to customers requirements.											
9531	Main dimensions according to customers requirements.											
9731	Main dimensions according to customers requirements.											

¹⁾ Gearbox standard design (dry). Dimensions and weights not strictly binding. Subject to changes.

Standards VLJ 430 - 9731



Basic Equipment

- Housing made from aluminium alloy or made from steel with a weight optimised design from VLJ 8531 on
- With cast brackets or prepared for fitting of mounting brackets for foundation connection (VLJ 430-2230 only)
- Vertical, alternative horizontal execution
- Spur wheels helically toothed, case hardened and tooth flank ground
- Built-in hydraulically operated disc clutches with steel/sinter friction surface.
- Smooth engagement by adapted pressure increase during shifting

Scope of supply

STANDARD

- Integrated oil sump. Common circuit for operating pressure and lube oil. Oil pump and oil filter accessible from the outside
- Fitted heat exchanger for cooling water inlet temperature of max. 32 °C, sea-water resistant
- Supervision instruments for pressure and temperature
- Built-on control valve, electrically or pneumatically operated
- Input: free shaft end with taper 1:30
- Output: forged-on flange
- Paint coating with synthetic resin varnish. Colour: RAL 7001 silver grey

EXTRAS

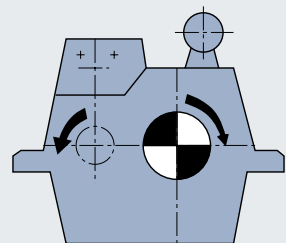
- Rigid, alternative resilient mounting (VLJ 430-2230 only)
- Supervision instruments in accordance with class requirements
- Spare parts kit as per classification rules
- Paint coating with synthetic resin varnish in all RAL-colours

In addition to our comprehensive standard VLJ gears, we offer customers special systems individually tailored to meet their propulsion unit requirements.

Subject to changes

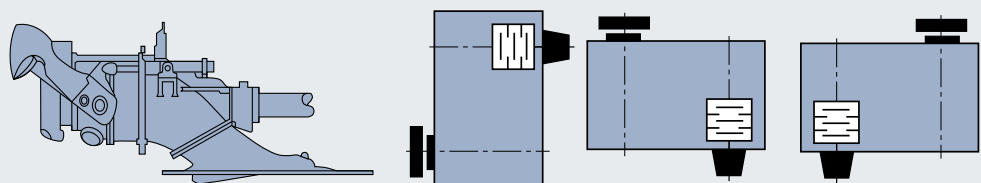
Direction of rotation VLJ

Seen from waterjet onto engine flywheel
anticlockwise
clockwise



VLJ series

Reduction gear for water jet propulsion





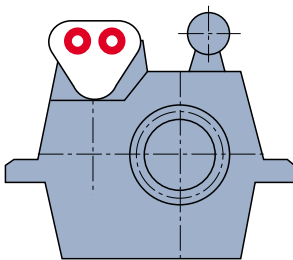
O P T I O N S A N D F E A T U R E S



Options

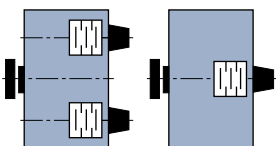
POWER TAKE OFF

If required, the gears can be fitted with additional power take offs (PTO), (application: hydraulic pumps).



DVLJ SERIES

V LJ gears are also available in twin input/single output execution.



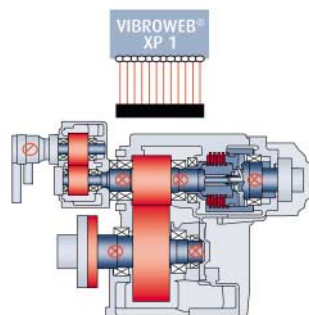
UNATTENDED MACHINERY SPACE

All gears can be supplied with additional supervision instruments, according to classification society rules, enabling the operator to take all necessary information from the bridge.



CONDITION MONITORING

Monitoring for all key data for proactive maintenance and management.



Duty Cycle Classification

MEDIUM DUTY



- Intermittent operation with some variations in engine speed and power
- Average engine operating hours limit: 4,000 hours/year
- Allowable hull forms: planing, semi-planing, catamaran
- Allowable applications: private, charter and commercial craft, navy and police activity (example: crew boats, high speed ferries)

CONTINUOUS DUTY



- Continuous operation with little or no variations in engine speed and power
- Average engine operating hours: unlimited
- Allowable hull forms: semi-displacement, displacement
- Allowable applications: commercial vessels

Other duty cycles for special applications such as patrol boats, rescue vessels etc. on request.



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