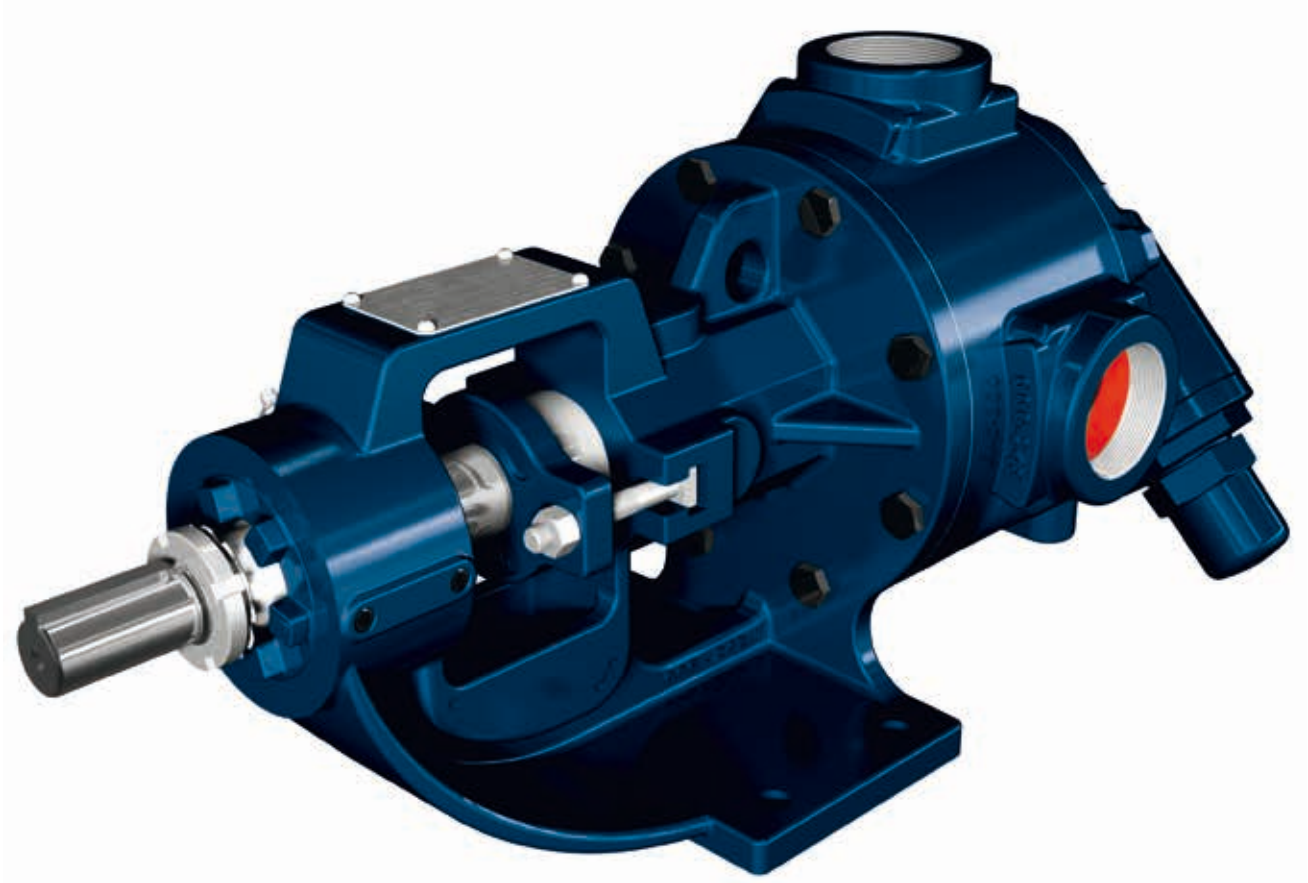
VALISI

A brand of Asco Pompe

Gear Pumps



Internal Gear Pumps
VD Series

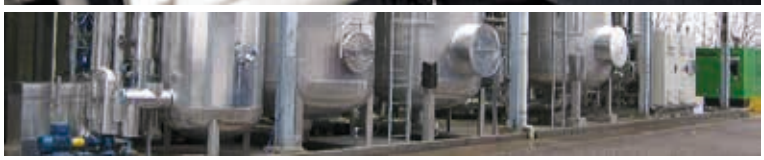
ASPHALT & BITUMEN INDUSTRY

PAINT INDUSTRY

FOOD INDUSTRY

PHARMACEUTICAL INDUSTRY

PAPER INDUSTRY

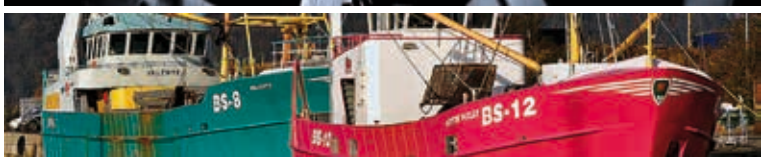


CHEMICAL INDUSTRY

COSMETICS INDUSTRY

LPG INDUSTRY

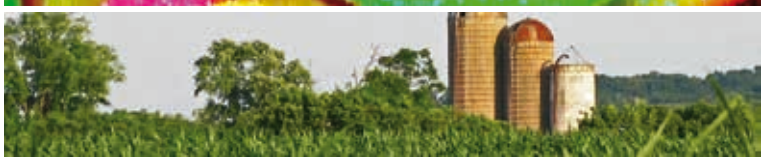
LUBRICATION OIL INDUSTRY



MARINE INDUSTRY

PETRO-CHEMICAL INDUSTRY

SUGAR INDUSTRY



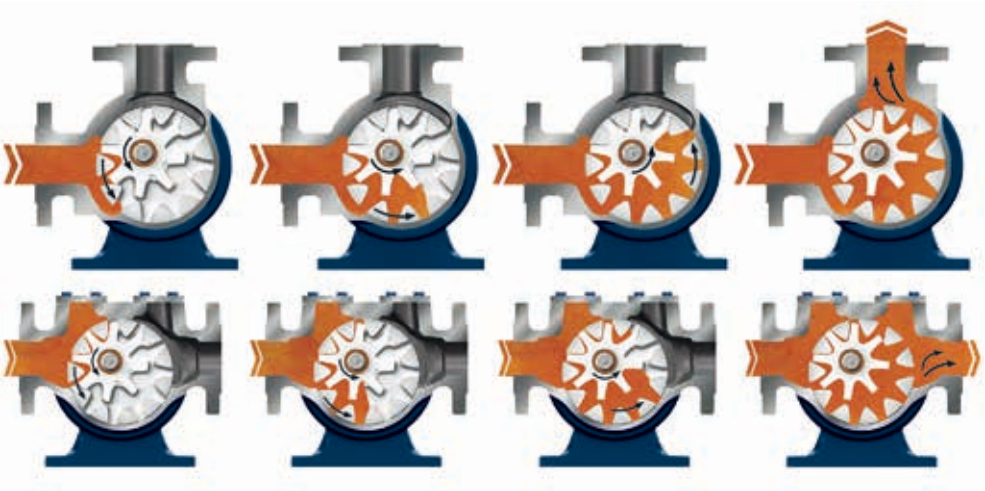
AGRICULTURAL INDUSTRY

Valisi Internal Gear Pumps are self-priming positive displacement pumps and they have reliable design with only two moving parts. Because of both direction properties, they are suitable for filling and discharge.
Internal gear pumps are used for low viscosity, fluids (solvents, fuel, etc.) and high viscosity fluids (asphalt, resins, chocolate, etc.) with adjustable clearance. They can transfer fluids whose viscosity is between 1 cSt-450.000 cSt

Features and Advantages:

- Wide variety with 60 different casing size
- Easy usage and maintenance with only two moving parts
- Operating wide range of viscosity
- The same pump can be used to fill and discharge thanks to its bi-directional properties
- Low NPSHR reduces possibility of cavitation
- Available in many different materials (cast iron, ductile iron, steel or stainless steel)
- The pump design is suitable for every type of seal (special design, lip seal, packing gland, single mechanical seal, double mechanical seal)
- Construction is suitable for many applications
- The pump is not affected by any pressure drops thanks to positive displacement principle
- Suitable for all kind of drivers (motor, gearbox, v-belt)
- Port options: ANSI & DIN Flanges or BSP & NPT threaded
- More cost effective than lobe or screw pumps as equipped with only one seal element
- Heating/Cooling jackets can be fitted on cover, casing or bracket
- Revolving casings 360°
- No special tools are required for maintenance
- Connections available at 90° (side-top) or 180° (in-line)
- Self-priming capability up to 950 mBar
- Relief valve can be fitted on pump cover or casing

Working Principle



Inlet Side – Outlet Up

Inlet and Outlet Side (In-Line)

1- Liquid enters from the suction port and fills the vanes created by the rotor (large external gear) and the idler teeth (small internal gear). The arrows indicate the direction of the pump and liquid.
2- Liquid travels through the pump between the teeth of the "gear-within-a-gear" principle.
The crescent shape divides the liquid and acts as a seal between the suction and discharge ports.
3- Rotor and idler teeth mesh completely to form an equidistant seal from the discharge and suction ports.
This seal forces the liquid out of the discharge port.

Without bracket design

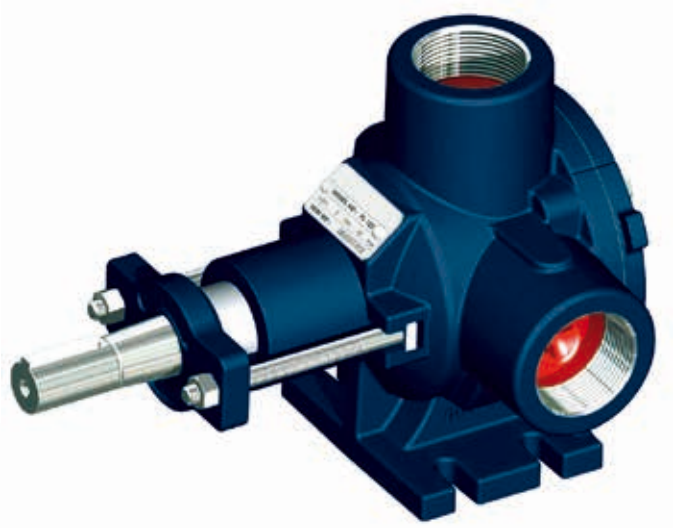
Features of VALISI VD series

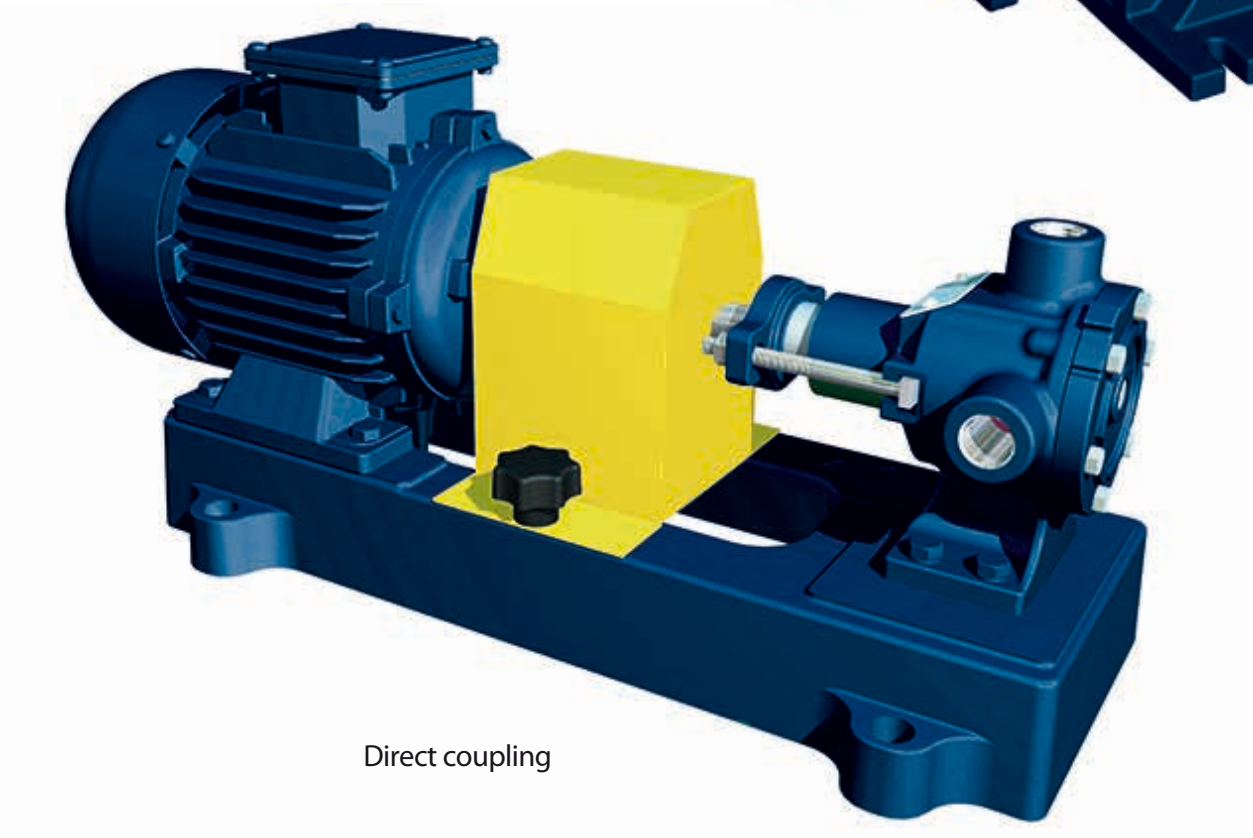
- Wide variety with 9 different casing size
- Available in many different materials (cast iron, ductile iron, steel or stainless steel)
- Operating at low and medium viscosity
- Self-priming capability up to 950 mBar
- No need of gearbox for low viscosity applications
- Pump stuffing-box design can house lip seal, packing gland and mechanical seal
- Economical solution with a direct drive mounting

Options

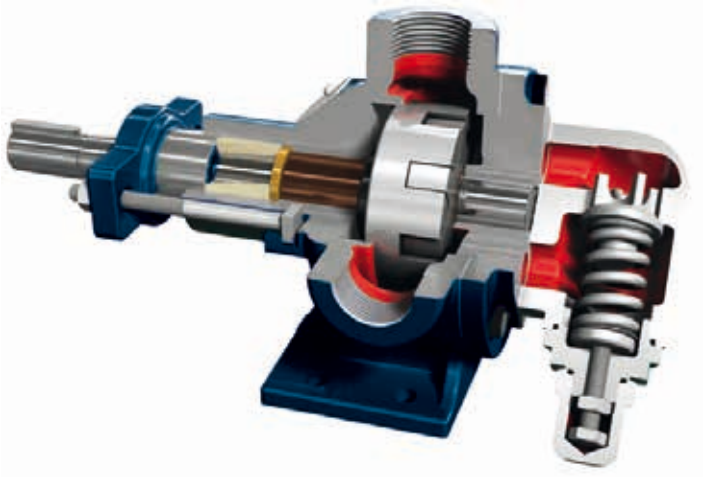
- Heating/Cooling jacket can be fitted to cover
- Relief valve can be fitted on pump cover
- Port options BSP & NPT threaded

Max. Capacity:	15 m^3/h
Max. Viscosity:	2.500 cSt
Max. Differential Pressure:	7 bar
Temperature Range:	-20°C to +180°C





Direct coupling



Cut away view with relief valve

Jacketed cover

CODE SYSTEM

VAS	6	122	G	1	B	V
Model	**Sealing**	**Construction**	**Connection**	**Casing Mat.**	**Bushing**	**By-Pass**
VAS VA VGL VFL VJS VJ VJL VK VKL	- : Packing gland 6 : External mechanical 9 : Lip seal	122: Standard 132: Jacketed cover	G: BSP N: NPT	1: Cast iron 2: Ductile iron 3: Steel 4: 316 Stainless steel	B: Bronze K: Carbon graphite T: Tungsten	- : No relief valve V: Relief valve on cover

Model	Inlet/Outlet Size		Capacity (at Max. Speed)		Max. Speed (rpm)	Max. Differential Pressure	
	Inch	mm	m³/h	GPM		PSI	Bar
VAS	½″	15	0,7	3	1750	100	7
VA	¾″	20	1,5	6,5			
VGL	1″	25	3	13	1450		
VFL	1½″	40	6	26			
VJS	2″	50	7	30	950		
VJ	2″	50	10	44			
VJL	2″	50	13	57			
VK	2″	50	12	52,5	500		
VKL	2″	50	15	66			

Note: The ports are available only BSP/NPT threaded.

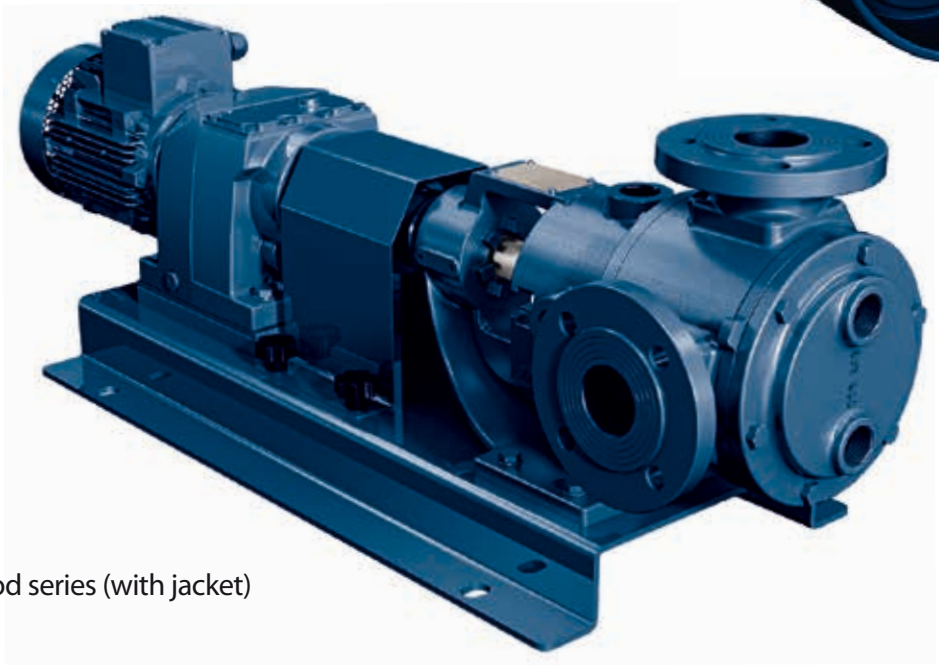
Exploded view

With bracket design

Features of VALISI VD series

- Wide variety with 19 different casing size
- Available in different materials (cast iron, ductile iron, steel or stainless steel)
- Operating at low and medium viscosity
- Self-priming capability up to 950 mBar
- The pump design is suitable for every type of seal (special design, lip seal, packing gland, single mechanical seal, double mechanical seal)

Max. Capacity:	390 m^3/h
Max. Viscosity:	450.000 cSt
Max. Differential Pressure:	14 bar
Temperature Range:	-50°C to +350°C



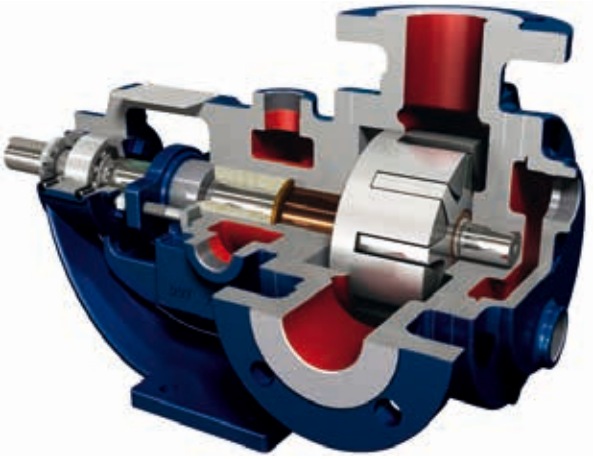
Food series (with jacket)

CODE SYSTEM

VH	5	222	F	1	B	V
Model	**Sealing**	**Construction**	**Connection**	**Casing Mat.**	**Bushing**	**By-Pass**
VB VS VCL VSL VH VM VHL VML VHM VN VJ VNL VJL VP VK VR VKL VZ VZL	-: Packing gland 4: Special design 5: Internal mechanical 6: External mechanical	222: Standard 232: Jacketed cover 242: Jacketed casing 252: Jacketed bracket 262: Jacketed cover & bracket 272: Jacketed cover & casing 282: Jacketed bracket & casing 292: Jacketed cover & bracket & casing	G: BSP N: NPT F: DIN Flg. A: ANSI Flg.	1: Cast Iron 2: Ductile iron 3: Steel 4: 316 Stainless steel	B: Bronze K: Carbon Graphite T: Tungsten	-: No relief valve V: Relief valve on cover W: Relief valve jacketed on cover

Options

- Heating/Cooling jackets on cover, casing and brackets
- Relief valve can be fitted on pump cover
- Port options: ANSI & DIN flanged or BSP & NPT threaded

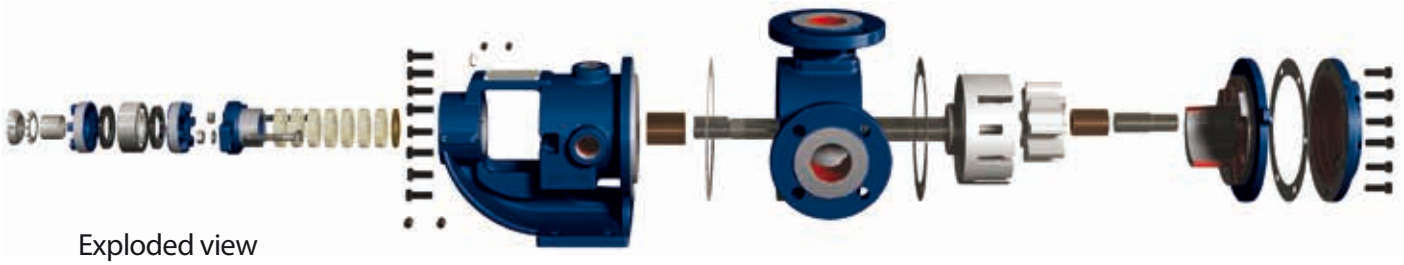


Cut away view with jacketed cover & bracket

Threaded connection ports with velief valve

Model	Inlet/Outlet Size		Capacity (at Max. Speed)		Max. Speed (rpm)	Max. Differential Pressure	
	Inch	mm	m³/h	GPM		PSI	Bar
VB	1″	25	2,4	10	1750	200	14
VCL	1″	25	3,5	15			
VH	1½″	40	3,5	15			
VHM	1½″	40	5	22			
VHL	1½″	40	7	30			
VJ	2″	50	11	50	1150		
VJL	2″	50	17	75			
VK	2″	50	19	85	900		
VKL	2″	50	26	115			
VS	2½″	65	36	160	750		
VSL	2½″	65	52	230			
VM	3″	80	52	230			
VML	3″	80	65	290	500		
VN	4″	100	65	290			
VNL	4″	100	113	495			
VP	5″	125	120	525	400		
VR	6″	150	157	695			
VZ	8″	200	267	1180	300		
VZL	10″	250	390	1720		125	8,5

Note: B and CL model pumps available with threaded connection only. H through M models available with threaded or flanged connections. ML through ZL models are with flanged connections only.



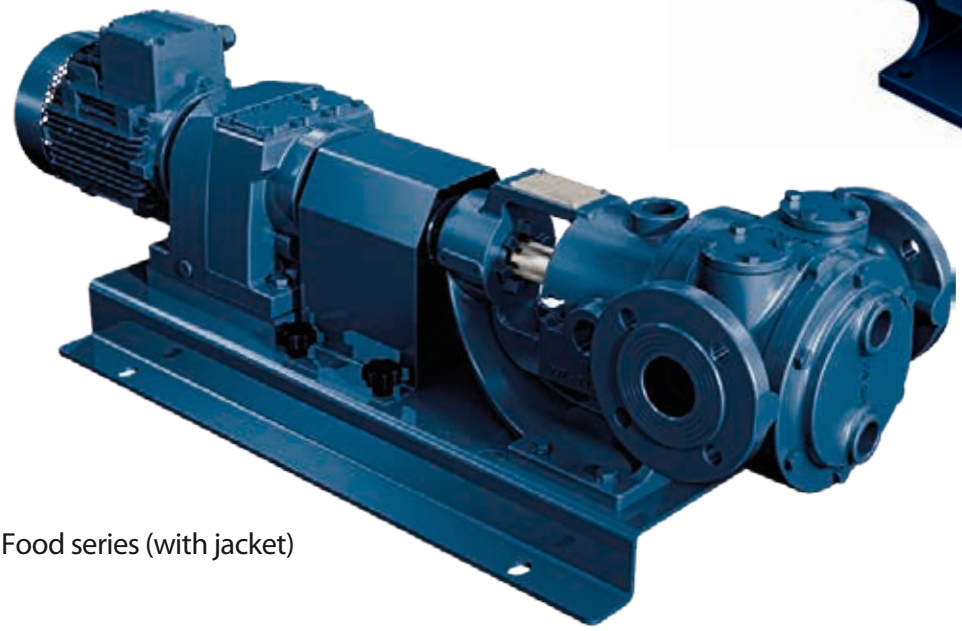
Exploded view

In-line design

Features of VALISI VD series

- Wide variety with 17 different casings
- Available in many different materials (cast iron, ductile iron, steel or stainless steel)
- Performing on a wide range of viscosity
- Self-priming capability up to 950 mBar
- Pump stuffing-box design can house lip seal, packing gland and mechanical seal

Max. Capacity:	390 m^3/h
Max. Viscosity:	450.000 cSt
Max. Differential Pressure:	14 bar
Temperature Range:	-50°C to +350°C



Food series (with jacket)

CODE SYSTEM

VH	5	422	F	1	B	V

Model
VH VM
VHM VML
VHL VN
VJ VNL
VJL VP
VK VR
VKL VZ
VS VZL
VSL

Sealing
-: Packing gland
4: Special design
5: Internal mechanical
6: External mechanical

Construction
422: Standard
432: Jacketed cover
452: Jacketed bracket
462: Jacketed cover & bracket

Connection
F: DIN Flg.
A: ANSI Flg.

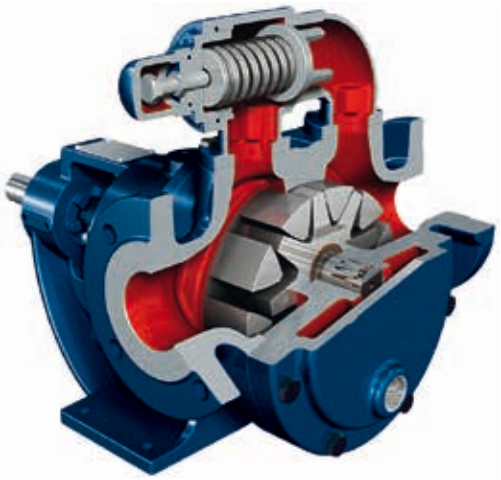
Casing Mat.
1: Cast Iron
2: Ductile iron
3: Steel
4: 316 Stainless steel

Bushing
B: Bronze
K: Carbon graphite
T: Tungsten

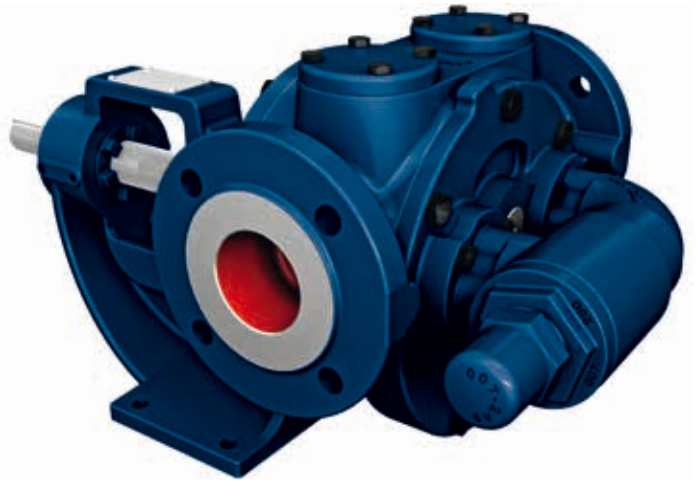
By-Pass
-: No relief valve
V: Relief valve on cover
W: Relief valve jacketed on cover
X: Relief valve on casing
Y: Relief valve jacketed on casing

Options

- Heating/Cooling jackets on cover, casing and bracket
- Relief valve can be fitted on pump cover and casing
- Ports options: ANSI & DIN flanges



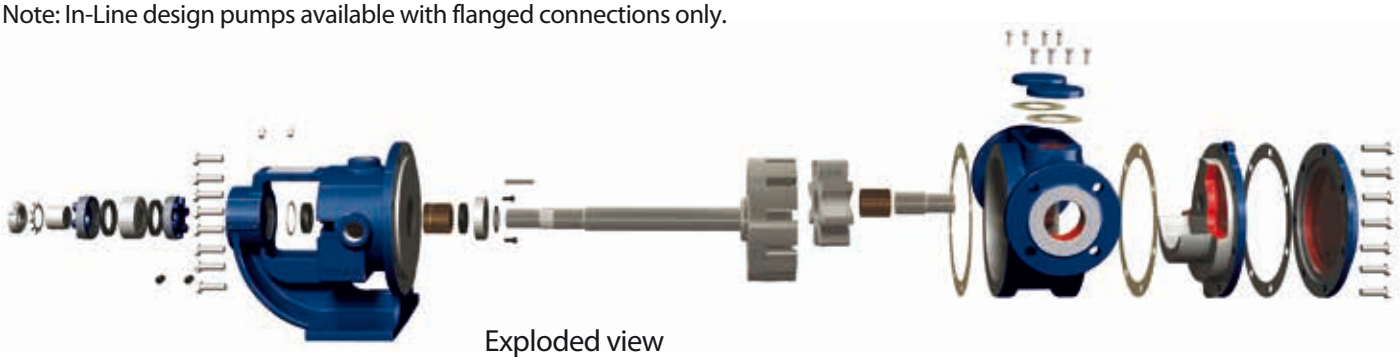
Cut away view with jacketed relief valve on casing



Relief valve on cover

Model	Inlet/Outlet Size		Capacity (at Max. Speed)		Max. Speed (rpm)	Max. Differential Pressure	
	Inch	mm	m³/h	GPM		PSI	Bar
VH	1½"	40	3,5	15	1750	200	14
VHM	1½"	40	5	22			
VHL	1½"	40	7	30			
VJ	2"	50	11	50	1150		
VJL	2"	50	17	75			
VK	2"	50	19	85	900		
VKL	2"	50	26	115			
VS	2½"	65	36	160	750		
VSL	2½"	65	52	230			
VM	3"	80	52	230			
VML	3"	80	65	290	500		
VN	4"	100	65	290			
VNL	4"	100	113	495			
VP	5"	125	120	525	400		
VR	6"	150	157	695			
VZ	8"	200	267	1180	300		
VZL	10"	250	390	1720		125	8,5

Note: In-Line design pumps available with flanged connections only.



Exploded view

Features of VALISI VD series

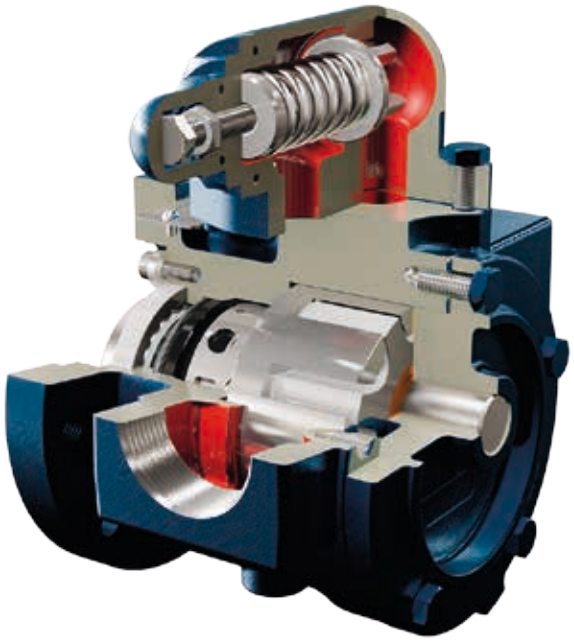
- Wide variety with 7 different casing size
- Available in many different materials (cast iron, ductile iron, steel or stainless steel)
- Operating at low and medium viscosity
- Self-priming capability up to 950 mBar
- Compact design, less space required
- Pump stuffing-box design can house lip seal and mechanical seal
- Economical solution with a direct drive mounting

Options

- Heating/Cooling jackets on cover, casing and brackets
- Relief valve can be fitted on pump cover
- Port options: ANSI & DIN flanges or BSP & NPT threaded

Max. Capacity:	17 m^3/h
Max. Viscosity:	2.500 cSt
Max. Differential Pressure:	10 bar
Temperature Range::	-20°C to +180°C

Jacketed cover, relief valve on casing



Cut away view with relief valve on casing

CODE SYSTEM

VH	5	722	F	1	B	V
Model	**Sealing**	**Construction**	**Connection**	**Casing Mat.**	**Bushing**	**By-Pass**
VB VJS VH VJ VHM VJL VHL	5 : Internal mechanical 9: Lip seal	722: Standard 732: Jacketed cover	G: BSP N: NPT F: DIN Flg. A: ANSI Flg.	1: Cast iron 2: Ductile iron 3: Steel 4: 316 Stainless stee	B: Bronze K: Carbon graphite T: Tungsten	-: No relief valve V: Relief valve on cover X: Relief valve on casing

Modello	Inlet/Outlet Size		Capacity (at Max. Speed)		Max. Speed (rpm)	Max. Differential Pressure	
	Inch	mm	m^3/h	GPM		PSI	Bar
VB	1″	25	2,4	10	1750	140	10
VH	1½″	40	3,5	15			
VHM	1½″	40	5	22			
VHL	1½″	40	7	30			
VJS	2″	50	8,5	37	1150		
VJ	2″	50	11	50			
VJL	2″	50	17	75			

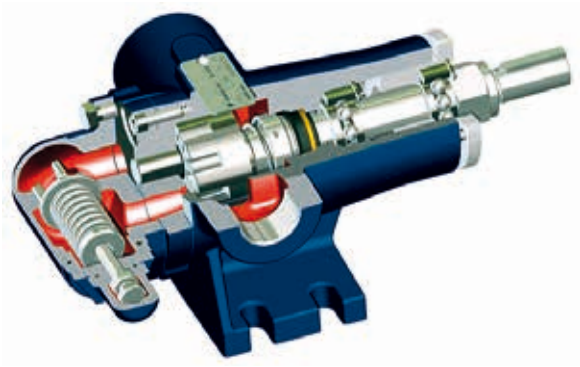
Features of VALISI VD series

- Wide variety with 8 different casing size
- Compact design, less space required
- Available in different materials (cast iron and ductile iron)
- Operating at low and medium viscosity
- Self-priming capability up to 950 mBar
- Pump stuffing-box design can house mechanical seal only
- Economical solution with direct drive mounting

Options

- Relief valve can be fitted on pump cover
- Port options: ANSI & DIN flanges or BSP & NPT threaded

Max. Capacity:	25,5 m^3/h
Max. Viscosity:	2.500 cSt
Max. Differential Pressure:	14 bar
Temperature Range:	-20°C to +180°C



Cut away view with relief valve on cover

Relief valve on cover (direct coupling)

CODE SYSTEM

VTL | **522** | **G** | **1** | **B** | **V**

Model
VT VJS
VTL VJ
VH VJL
VHM
VHL

Construction
522: Standard

Connection
G: BSP
N: NPT

Casing Mat.
1: Cast Iron
2: Ductile iron

Bushing
B: Bronze
K: Carbon graphite
T: Tungsten

By-Pass
-: No relief valve
V: Relief valve on cover

Model	Inlet/Outlet Size		Capacity (at Max. Speed)		Max. Speed (rpm)	Max. Differential Pressure	
	Inch	mm	m^3/h	GPM		PSI	Bar
VT	1″	25	2	8,8	1750	200	14
VTL	1″	40	2,5	11			
VH	1½″	40	3,6	15,5			
VHM	1½″	40	5,1	22			
VHL	1½″	50	7,4	32			
VJS	2½″	50	12,8	56			
VJ	2½″	50	19,2	84			
VJL	3″	50	25,5	112			

Excellence in Fluid Handling

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