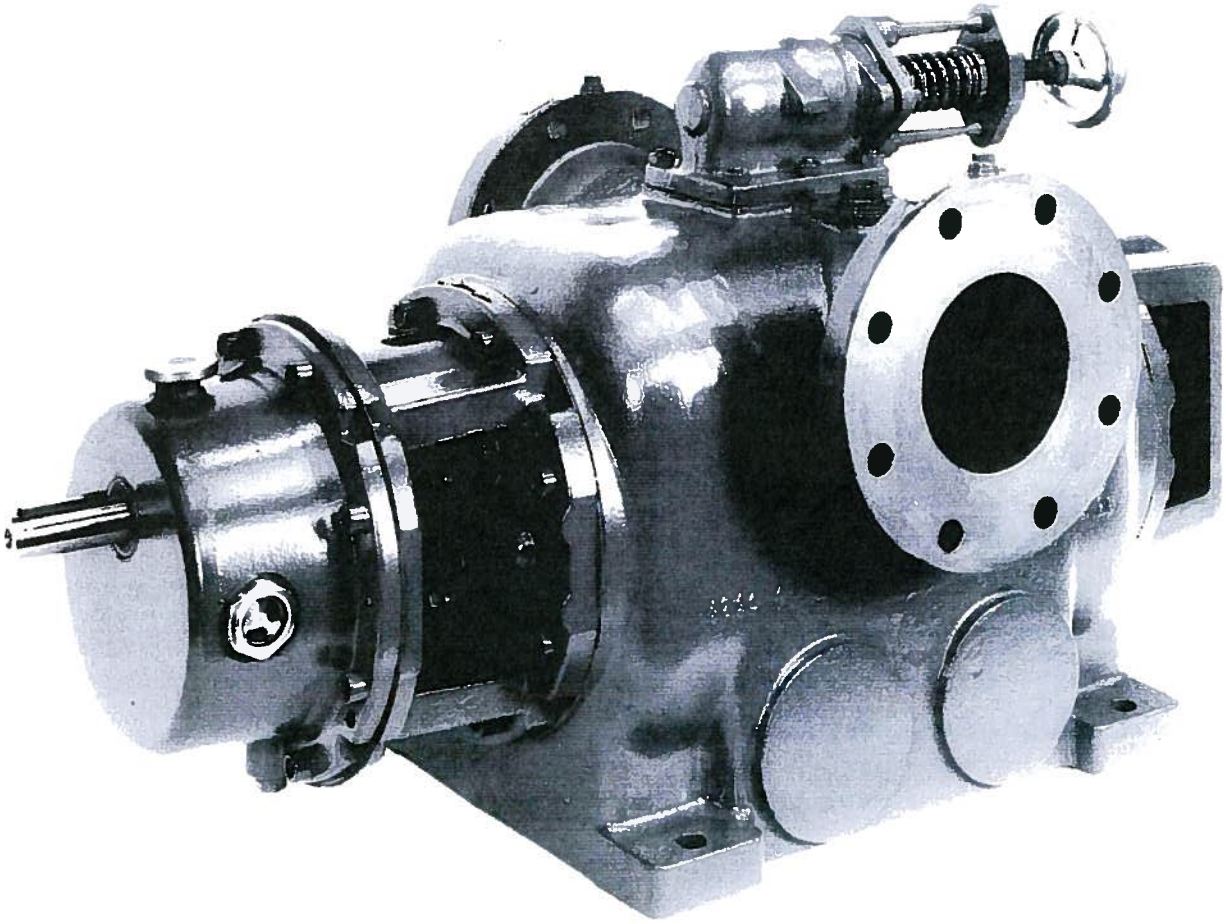
Series TDLH

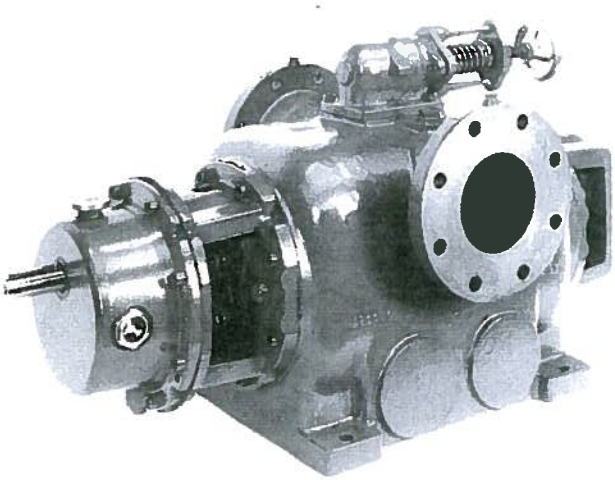
Shanleyselfpriming horizontal screwpump for handling most different corrosive and abrasive liquids

SHANLEY PUMP



Application Areas

Chemical Industry
Petrochemical Industry
Tar Industry
Shipbuilding Industry
Margarine Industry
Paint and Laquer Industrie
Soap Industry
Sugar Industry



Applications

For pumping contaminated or slightly abrasive, lubricating and non-lubricating liquids of low or high viscosity which do not chemically attack the pump materials (corrosion proof materials can be offered).

In the chemical and petro-chemical industry, soap and grease industry, paint and lacquer industry, food and beverage industry, plastics industry, sugar industry, environmental technology, in the shipbuilding industry.

Performance data

Capacity	Q	up to	4,400 US gpm		1000 m³/h
Viscosity range	υ	32 to	23,000 SSU	0,6 to	5000 cSt
Temperature of pumped liquid	t	up to	284 °F		140 °C
Inlet pressure	p_s	up to	145 PSI		10 bar
Outlet pressure	p_d	up to	232 PSI		16 bar
Difference pressure	△p	up to	232 PSI		16 bar
Speed	n	up to	2900 rpm		
Flanges	according to ANSI or DIN				

Principle

The *SHANLEY* double entry twin screw pumps serie 236 are horizontal rotating self priming positive displacement pumps.

Two intermeshing screws rotating in a pump casing ensure high pumping efficiency with constant axial flow and unequalled suction power.

Construction

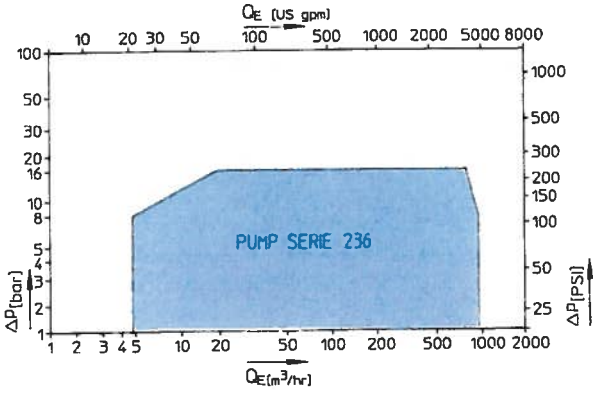
The spindles are supported and axially held in position by ball bearings.
The transmission of torque from the driven spindle to the idler spindle is effected by oil lubricated timing gears located outside of the pumping area in an attached gearbox.
The ball bearings and timing gears maintain a small clearance between the screws, thus preventing metal to metal contact.

Shaft sealing

In standard design the pump can be fitted with normal stuffing boxes or single unbalanced mechanical seals, with fluidchamber if required, for keeping the liquid to be pumped isolated from the bearings and the gearbox.

Overload protection

For protection against over loading a built-on spring loaded relief valve can be supplied.

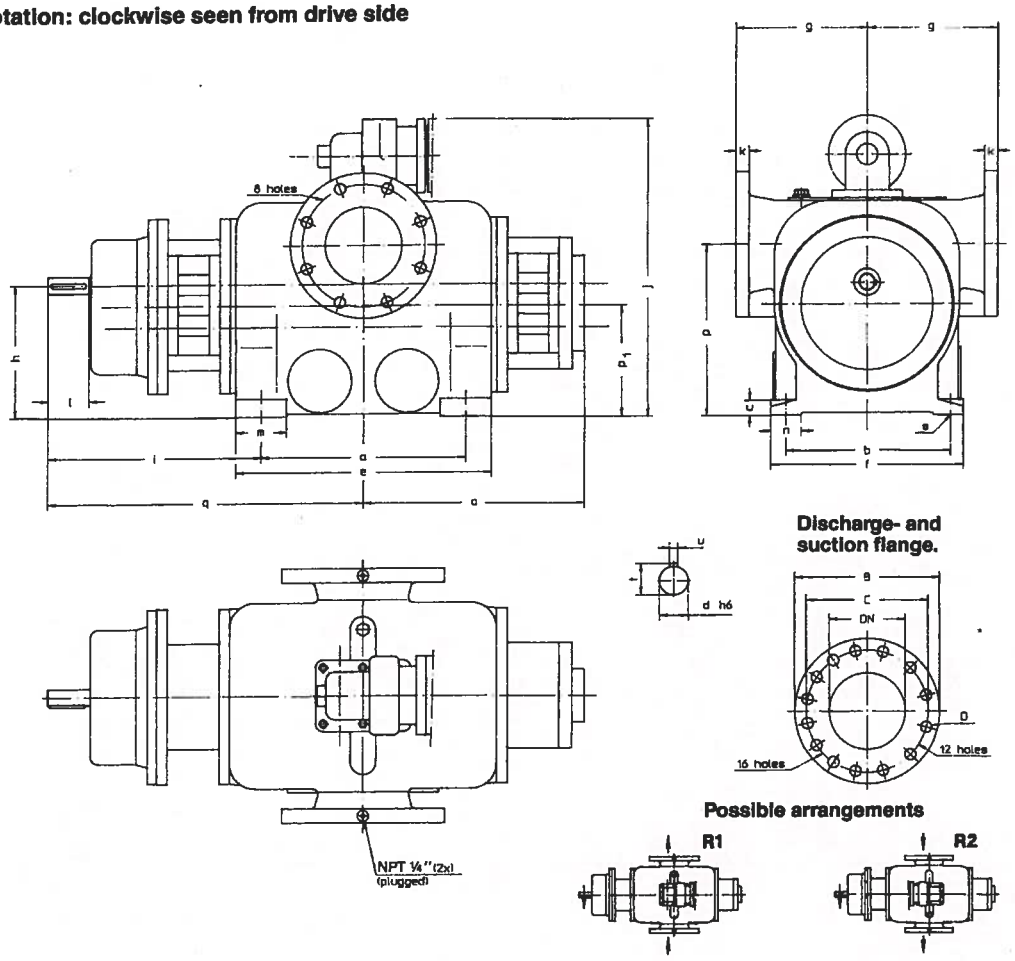


For the exact performance data as function of the viscosity of the liquid to be pumped and the pump speed, please refer to the individual characteristics.

Standard materials for pump and mechanical seals:

Pump				Mechanical seals according to API or DIN		
Screwshafts	Casing insert	Casing	Covers	Rotary ring	Stationary ring	'O'-ring
– Carbon Steel – Surface hardened Steel – Stainless Steel (Type 400) – Stainless Steel (Type 300)	– Cast Iron – Nodular Cast Iron – Ni-Resist – Bronze	– Cast Iron – Nodular Cast Iron – Cast Iron with coating – Bronze	– Cast Iron – Cast Iron with coating	– Chrome alloy – Stellite	– Carbon – Springs in Stainless Steel (Type 300)	– Viton – Teflon

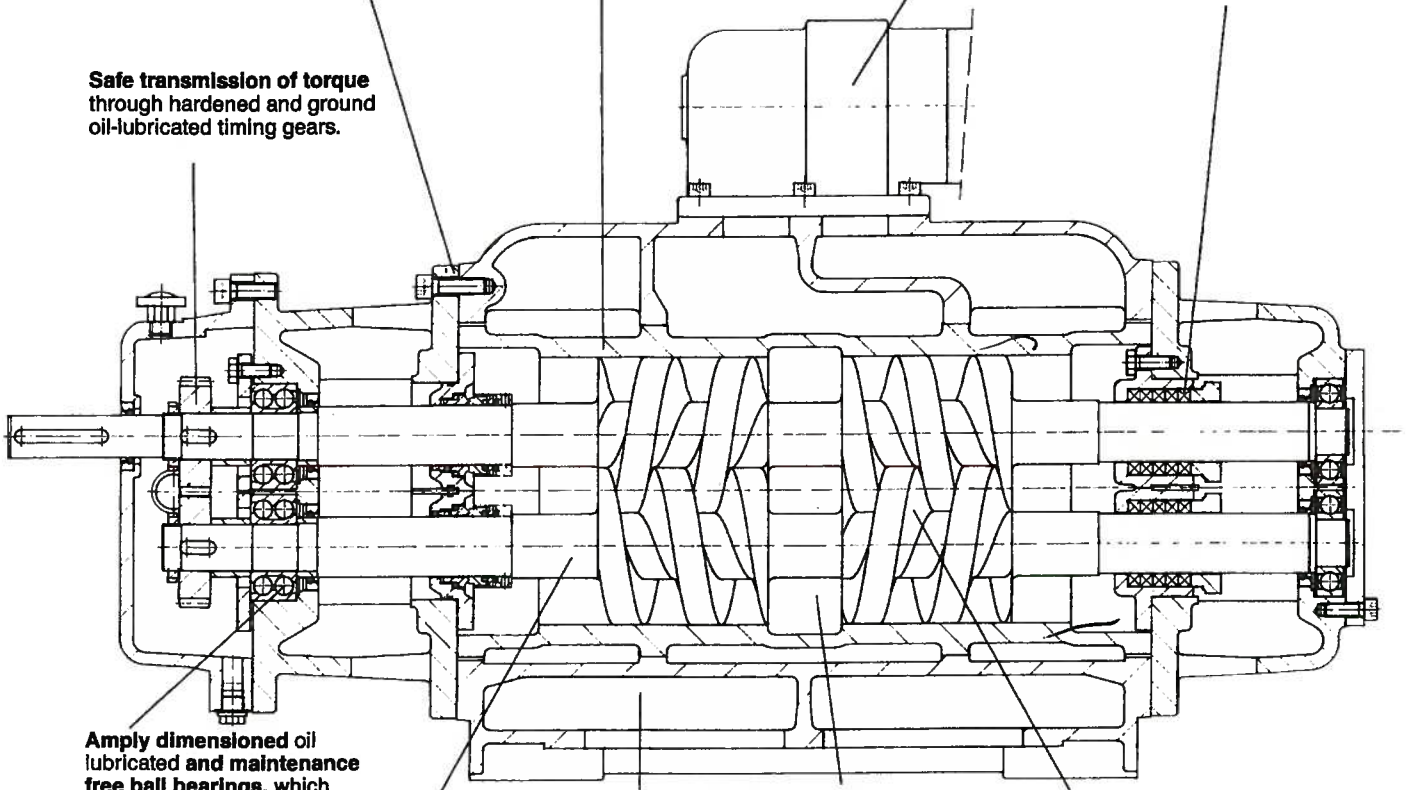
Sense of rotation: clockwise seen from drive side



Made in metric. Shown in decimal equivalent.
Dimensions are subject to alterations.

pump size	pump foot dimensions								flanges ANSI 150 lbs FF				relief valve
	a	b	c	e	f	m	n	s	DN	B	C	D	type
088	12.80	12.20	1.38	16.34	13.78	3.54	2.36	4x .71	4	8.98	7.50	8x .71	46 VI/VO
105	14.57	12.99	1.38	18.11	14.57	3.54	2.36	4x .71	5	10.00	8.50	8x .71	46 VI/VO
118	15.75	13.19	1.38	19.69	14.96	3.94	2.36	4x .87	6	11.22	9.50	8x .87	70 VI/VO(E)
135	18.89	15.77	1.57	22.44	17.72	3.94	2.76	4x .87	8	13.39	11.75	12x .87	70 VI/VO(E)
150	22.83	17.72	1.57	26.38	19.69	3.94	2.76	4x .87	10	15.94	14.25	12x1.02	100 VI/VO(E)
165	24.41	19.29	1.77	29.13	19.69	4.72	3.54	4x1.02	10	15.94	14.25	12x1.02	100 VI/VO(E)
180	26.38	21.26	1.77	31.10	23.62	4.72	3.54	4x1.02	12	18.11	17.00	12x1.02	100 VI/VO(E)
195	26.81	23.23	1.77	31.50	25.59	4.72	3.54	4x1.02	12	18.11	17.00	12x1.02	135 VI/VO(E)
210	27.17	23.62	1.77	33.07	25.98	5.90	4.72	4x1.02	12	18.11	17.00	12x1.02	135 VI/VO(E)
225	27.56	25.98	1.77	33.46	28.35	5.90	4.72	4x1.02	14	20.47	18.75	16x1.02	135 VI/VO(E)

pump size	pump dimensions												shaft end			
	g	h	i	j	k	o	p	p1	q				d	l	t	u
088	9.06	9.06	14.27	19.21	1.04	14.96	12.20	7.90	20.67				1.12	2.40	1.24	.32
105	9.45	9.65	14.76	19.92	1.04	15.75	12.40	8.30	22.05				1.12	2.40	1.24	.32
118	9.84	10.24	15.75	24.02	1.04	16.89	13.40	8.72	23.62				1.28	3.20	1.40	.40
135	10.83	11.02	15.94	25.79	1.20	18.31	14.20	9.32	25.39				1.52	3.20	1.64	.40
150	11.81	12.01	16.14	31.69	1.28	20.67	16.00	10.09	29.33				1.68	4.40	1.80	.48
165	12.60	13.19	19.69	32.76	1.28	22.68	17.00	11.10	31.89				1.80	4.40	1.94	.56
180	13.78	13.98	20.28	35.31	1.28	24.02	18.60	11.68	33.46				1.97	4.40	2.14	.56
195	14.57	14.76	20.47	38.70	1.28	24.69	19.20	12.28	34.85				2.17	4.40	2.36	.64
210	15.35	15.55	23.82	40.35	1.28	26.22	20.80	12.86	37.40				2.34	5.60	2.56	.72
225	17.13	16.34	24.21	42.12	1.52	26.65	21.60	13.46	37.99				2.56	5.60	2.76	.72



Safe shaft sealing by unbalanced and product lubricated mechanical seals.

Interchangeable casing insert therefore different materials possible.

For **overload protection** a direct mounted pressure relief valve is optional.

Safe shaft sealing by stuffingbox with soft-packing.

Safe transmission of torque through hardened and ground oil-lubricated timing gears.

Amply dimensioned oil lubricated **and maintenance free ball bearings,** which additionally serve for the axial thrust of the spindles.

Rigid spindles of solid material therefore compared with multi-part spindles **no crevice corrosion.**

Heating of the pump foot by means of a medium or electric is optional.

Axial forces balanced through double entry spindles.

The special profile of the spindle flanks results in **continuously and nearly pulsation-free pumping, high efficiency, good NPSH-values and constant pressure course.**