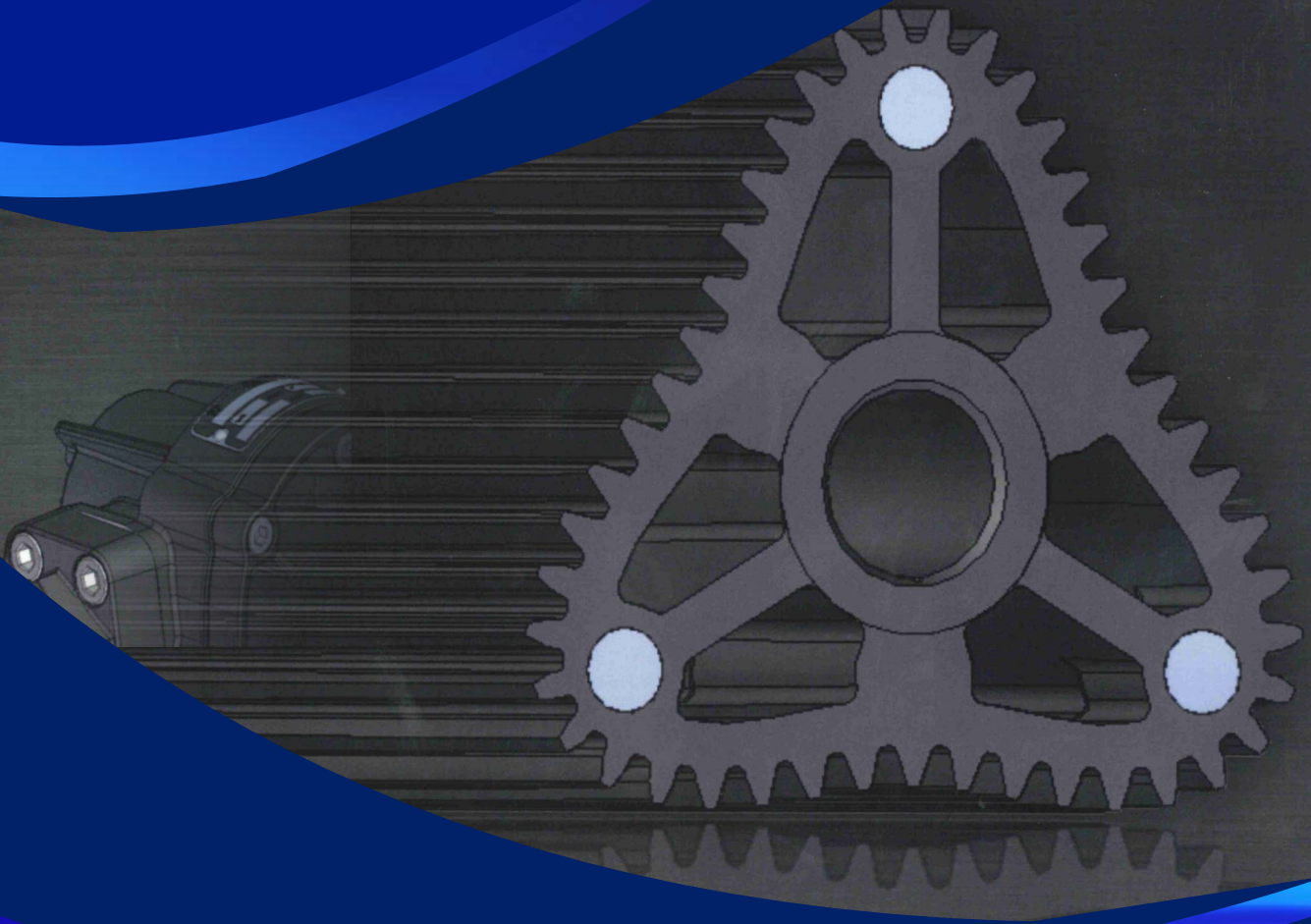


NEW GENERATION

POSITIVE DISPLACEMENT FLOW METERS



VEDCO INDUSTRIAL SYSTEMS

New Design Technology Leads To Superior Meter

Overview

Positive Displacement Oval gear, Spur gear, Rotary Vane, BiRotor & Helical geared metering principals are well established and continue to be the strongest force behind accurate flow metering today. Oval & Spur geared meters are relatively inexpensive when compared to the more expensive and more accurate Rotary Vane, BiRotor & Helical geared meters.

Introduction

With the new Vedco Industrial Systems Principal Prometer have identified an opportunity to create a new market layer which sits squarely between the above two distinct categories in terms of price but the Vedco challenges the more expensive technologies in terms of overall performance, accuracy (+/-0.15%), repeatability (+/-0.01%) and low pressure drop (reduced by 1/3rd) are three characteristics which stand out, low noise generation (75db max.) is another bonus benefit to the end user.

Vedco Industrial Systems inside story reveals a robust positive displacement "three lobe geared" flowmeter incorporating innovations & features that bring these extended benefits to market.

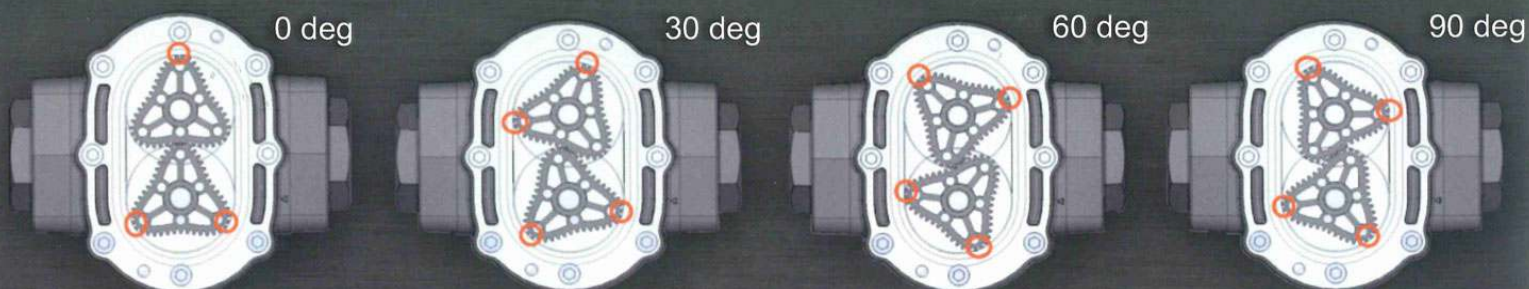
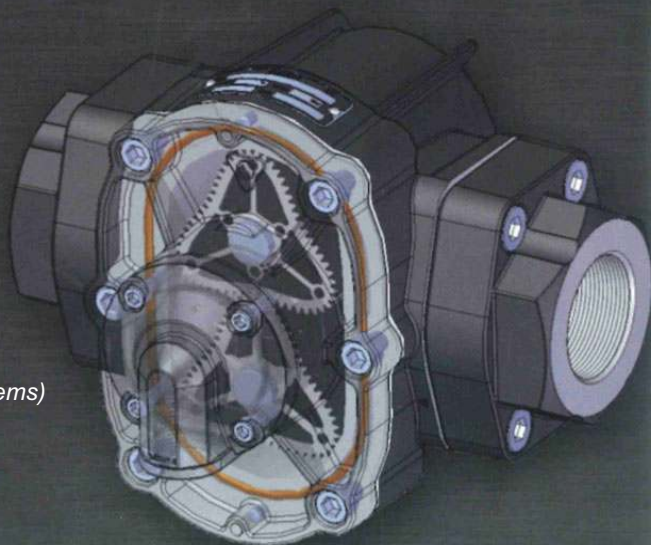
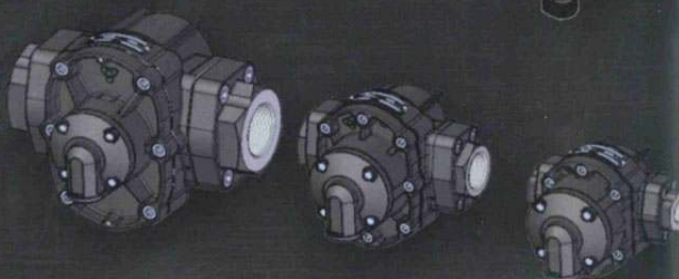
Summary


Prometer innovative Vedco Industrial Systems flowmeters are the very latest new development in the competitive arena of positive displacement flowmeters which till now has remained unchanged for many decades.

The Vedco Industrial Systems totally out performs its competitors when it comes to the accurate metering of most clean liquids including fuels, oils, additives, chemicals, food bases, paints, viscous emulsions, insecticides, alcohols & solvents either pumped or gravity fed.

Checklist

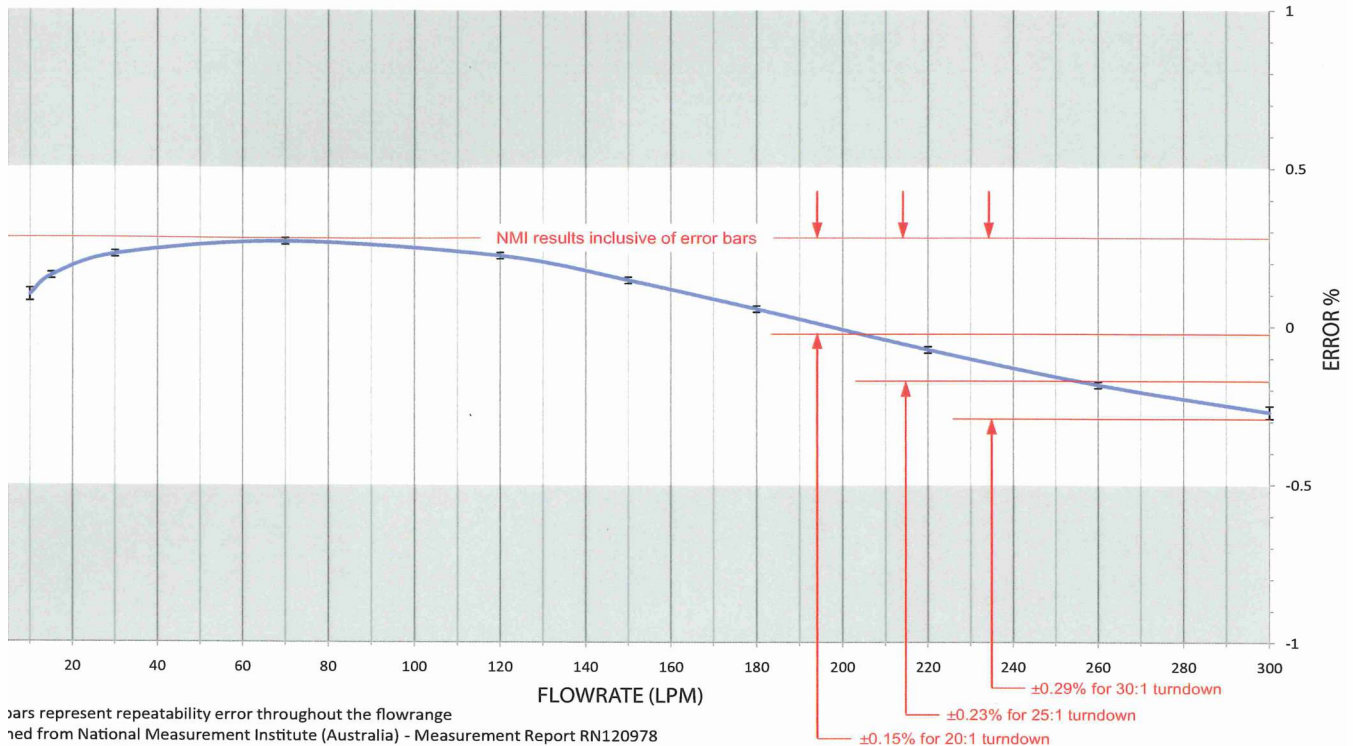
- Very latest innovation for many decades (*patents pending*)
- Custody transfer accuracy & linearity standard (+/-0.15%)
- Wide turndown (*less slippage, 54% more sealing characteristic*)
- Smoother & quieter - less vibration (*balanced Vedco Industrial Systems*)
- High resolution quadrature pulse output
- Dual outputs (reed & hall effect) standard
- No requirement for flow conditioning
- Bi-directional flow capacity



 Vedco Industrial Systems Labyrinth Seal Points at chamber walls provide 54% more dynamic sealing than Oval Gears.

Performance & Specifications

TG040A - Accuracy vs. Flowrate



Model prefix :	TG004	TG008	TG015	TG025	TG040	TG050
Capacity group :	small capacity		medium capacity			
Orifices (mm)	4mm (1/8")	8mm (3/8")	15mm (1/2")	25mm (1")	40mm (1.5")	50mm (2")
Flow range (LPH) litres/min	(0.5 ~ 36)	(15 ~ 550)	2 ~ 60	5 ~ 125	10 ~ 250	20 ~ 500
Flow range (GPH) US gal/min	(0.13~9.5)	(4~145)	0.6 ~ 16	1.3 ~ 33	2.6 ~ 66	5 ~ 132
Accuracy	± 0.5% of reading		± 0.15% of reading (15:1 turndown), ± 0.25% of reading (25:1 turndown)			
Resolution	typically ± 0.01% of reading					
Temperature range	-20°C ~ +80°C (-4°F ~ +180°F), refer factory for lower & higher temperatures					
Pressure range (threaded meters)	bar (PSI)					
aluminium meters, Ryton cap	15 (220)		10 (150)			
316 stainless meters, Ryton cap	15 (220)		10 (150)			
316 stainless meters	30 (440)		30 (440)			
high pressure models	refer factory					
Pulse meters (see below for optional outputs)						
Resolution	pulses / litre (pulses / US gallon) - nominal					
Reed switch	4000 (15140)	200 (760)	75 (285)	32.5 (123)	12 (45)	8.1 (30.7)
Hall effect & Quadrature	8000 (30280)	400 (1510)	150 (570)	65 (246)	523.5 (89)	16.2 (61.3)
High Resolution Hall option	24000 (90840)	1200 (4540)				
Output (NPN)	30Vdc x 200mA max. (maximum thermal shock 10°C (50°F) / minute)					
	3 wire open collector, 5~24Vdc max., 20mA max.					
	4~20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control					
	IP66/67 (NEMA4X), integral ancillaries can be supplied I.S. (intrinsically safe)					
@ maximum flow					75 db	
	refer data sheet					
	refer data sheet					

Model Designation

Viscosities (cp)	Max. flow multiplier
up to 1200	1.0
1200~4000	0.6
up to 6000	0.5
up to 10000	0.4
up to 20000	0.3
40000 max.	0.16
60000 max.	0.12
100000 max.	0.08
200000 max.	0.06
400000 max.	0.05
600000 max.	0.04
up to 1000000	0.03

Size

TG	004	1/8"	aluminium or stainless steel
TG	008	3/8"	aluminium or stainless steel
TG	015	1/2"	aluminium or stainless steel
TG	025	1"	aluminium or stainless steel
TG	040	1 1/2"	aluminium or stainless steel
TG	050	2"	aluminium or stainless steel

Body material

S	316L Stainless Steel
A	Aluminium

Tri-gear material

1	PPS (Ryton)
2	PEEK (FDA Approved Material)
6	Keishi cut PPS (Ryton) - for high viscosity liquids
8	Keishi cut PEEK - for high viscosity liquids

Bearing type

1	PPS (Ryton)
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O-ring material

1	Viton (standard)
2	EPR - (Ethylene Propylene Rubber)
3	Teflon encapsulated viton
4	Buna-N (Nitrile) 100 °C (212 °F) max.

Temperature limits

1	80°C (180°F)
2	120°C (250°F) -see note 1

Process connections

1	BSP female threaded
2	NPT female threaded
4	ANSI-150 RF flanges
5	ANSI-300 RF flanges
6	PN16 DIN flanges
9	Customer nominated

Cable entries

1	M20 x 1.5mm
2	1/2" NPT

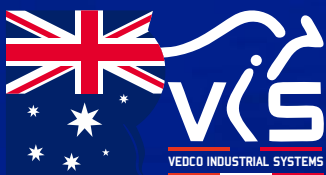
Model No. Example

TG025 A 1 1 1 ~ 1 2 1 F1 (refer factory for model availability)

Integral options

High resolution Hall Effect output	HR	High Resolution
Pulsating flow Hall Effect option	PF	Pulsating Flow
Loop powered 4~20mA output option	FI	Analog output
Loop powered high & low flow alarms	FA	Flow Alarms
Loop powered pulse scaling	SP	Scaled Pulse output

(1) Cooling fin is fitted with LCD instruments for operation between 80~120°C (180~250°C)



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