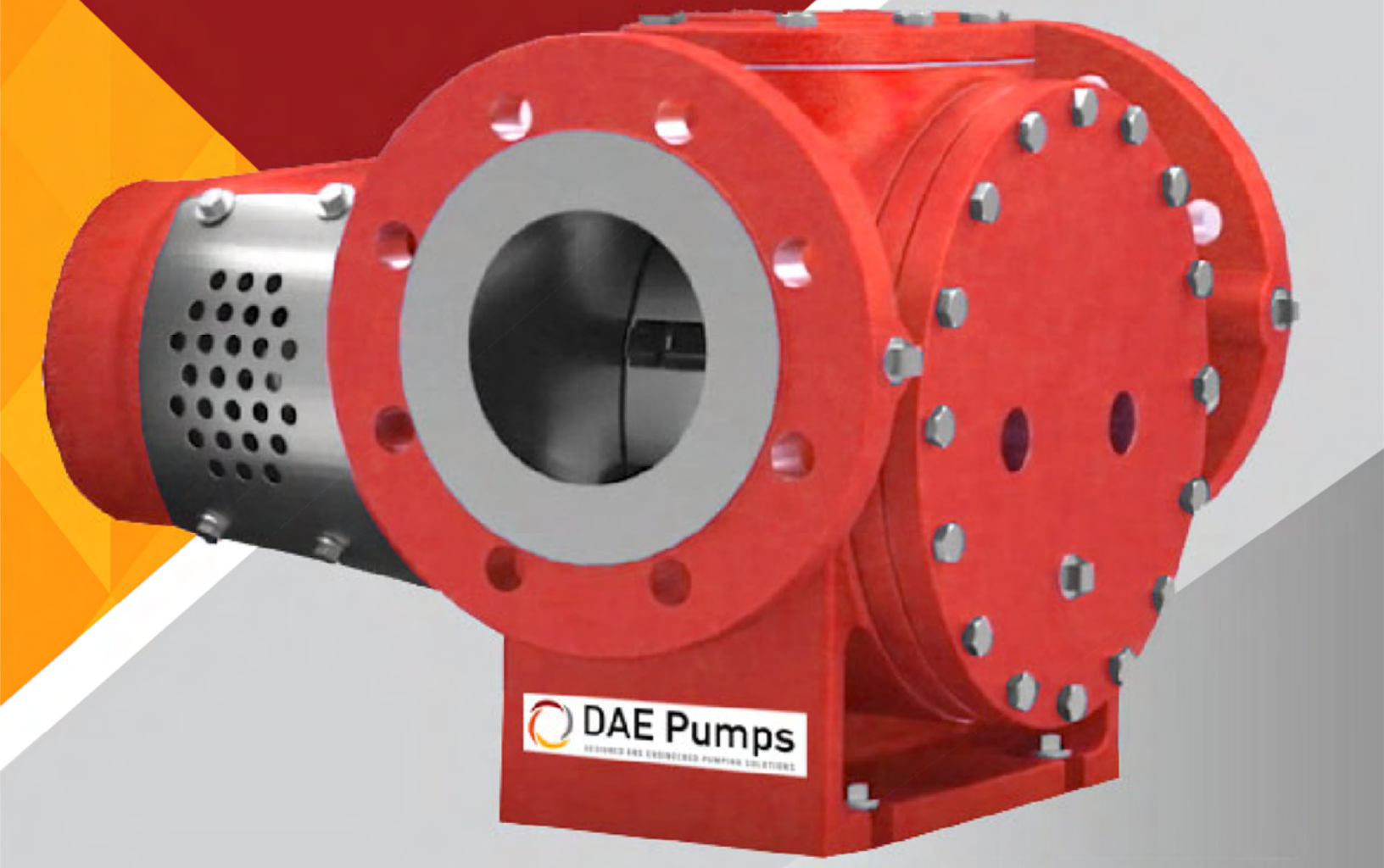
TULARE

Gear Pumps



DAE Pumps

DESIGNED AND ENGINEERED PUMPING SOLUTIONS

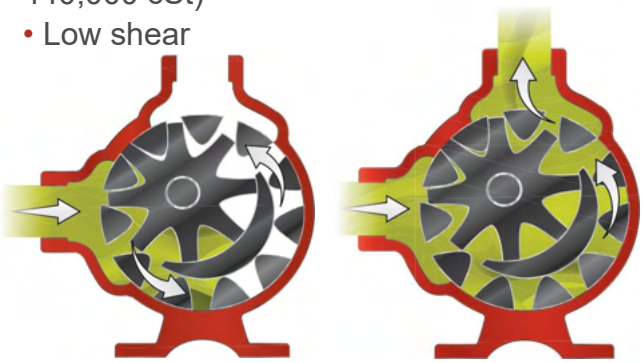
EXTERNAL MATERIAL	Cast or Ductile Iron	Steel Externals	Stainless Steel
PERFORMANCE			
Maximum Flow Range - GPM	1,600	1,600	1,600
Maximum Flow Range - LPM	6,057	6,057	6,057
Maximum Flow Range - m^3/h	363	363	363
Maximum Pressure - PSI	200	200	200
Maximum Pressure - BAR	14	14	14
Maximum Viscosity - SSU	2,000,000	2,000,000	2,000,000
Maximum Viscosity - cSt	440,000	440,000	440,000
Temperature Range - °F *	-60°F to +450°F	-20°F to +800°F	-120°F to +500°F
Temperature Range - °C *	-50°C to +230°C	-30°C to +430°C	-85°C to +260°C
SEALING			
Packing	✓	✓	✓
Behind the Rotor Seal	✓		✓
Component Mechanical Seal	✓	✓	✓
Cartridge Mechanical Seal	✓	✓	✓
Cartridge Triple Lip Seal	✓	✓	✓
Sealless Mag Drive	✓	✓	✓
API 682 Seal		✓	✓
Lip Seal			
Balanced Seal	✓	✓	✓
JACKETING OPTIONS			
Head / Bracket	✓	✓	✓
Casing / Head / Bracket (Full)	✓	✓	✓
PORTING			
Right Angle (90°)	✓	✓	✓
Opposite (180°)	✓	✓	✓
NPT	✓		✓
Flanged	✓	✓	✓
SAE Flange			
SAE O-Ring			
MOUNTING			
Foot Mount	✓	✓	✓
Motor Mount (Close-Coupled)			
Vertical Mount			
MARKETS			
Chemicals	✓	✓	✓
Coatings & Sealants	✓		✓
Foods	✓		✓
Fuels	✓	✓	
Machinery	✓	✓	
Oils	✓	✓	
Personal Care			✓
Polymers		✓	✓
Pulp & Paper	✓		
Water & Wastewater			✓

* Maximum temperature with special construction

INTERNAL GEAR PUMPS

WHY? The internal gear pump is the "work-horse" of countless manufacturing processes.

- Broadest selection of materials, designs, seals, ports and displacements
- Adjustable clearances enable handling viscosities from 28 to 2,000,000 SSU (1 to 440,000 cSt)
- Low shear



TYPICAL APPLICATIONS

Common internal gear pump applications include, but are not limited to:

- All varieties of refined fuels & lubricants
- Resins & polymers
- Alcohols & solvents
- Asphalt, bitumen & pitch
- Polyurethane foam (isocyanates, polyols & additives)
- Food products such as corn syrup, chocolate & peanut butter
- Paint, inks & pigments
- Soaps & surfactants
- Heat transfer fluids

MATERIALS OF CONSTRUCTION & CONFIGURATION OPTIONS

Externals (Head, Casing, Bracket)

Cast iron, ductile iron, steel, stainless steel, and other alloys

Internals (Rotor, Idler)

Cast iron, ductile iron, steel, hardened steel, stainless steel, and other alloys

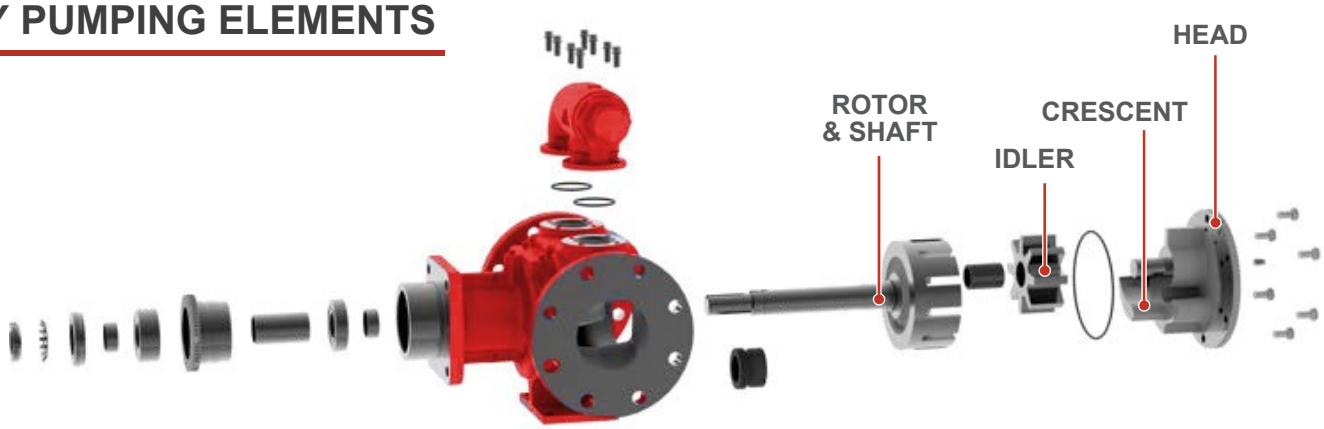
Bushings (Sleeve Bearings)

Carbon graphite, bronze, hardened cast iron, silicon carbide, tungsten carbide, and other specials materials as needed

Shaft Seal

Lip seals, packing, component mechanical seals, industry-standard cartridge mechanical seals, API 682 seals and sealless magnetic couplings

KEY PUMPING ELEMENTS



ADVANTAGES

Reliable & Easy to Maintain
Only two moving parts

Adjustable End Clearances
For low or high viscosities, high temperatures, or to compensate for wear over time

Shaft Seal Options
Including packing, lip seal, component seal, cartridge seal and sealless mag drive

Porting Options
Tulare's broadest selection of port locations, configurations and types

Smooth, Non-Pulsing Flow
For accurate flow measurement

One Shaft Seal
More reliable and lower cost than two or four seals used on timed lobe and screw pumps

Compact, Close-Coupled Options
For motor speed operation or with gearmotors

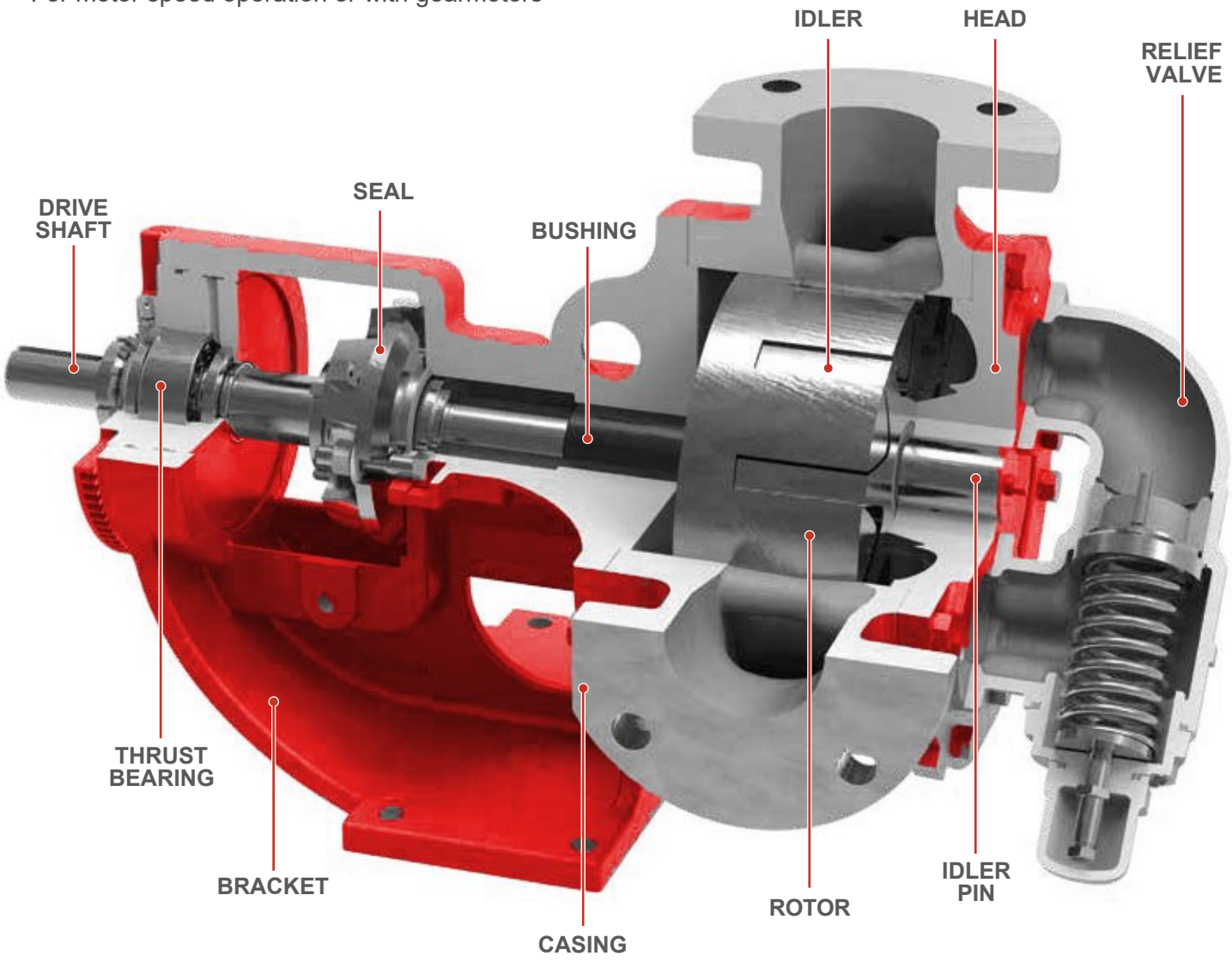
PERFORMANCE

Flow Range
to 1,600 GPM (363 m^3/h)

Viscosity
28 to 2,000,000 SSU (1 to 440,000 cSt)
With special construction

Pressure
to 250 PSI (17 BAR)

Temperature
-120°F to +800°F (-85°C to +430°C)
With special construction



TULARE

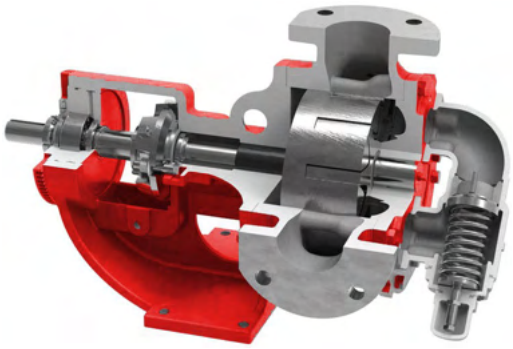
DAE Pumps
DESIGNED AND ENGINEERED PUMPING SOLUTIONS

FLOW RANGE
to 1,600 GPM
(363 m^3/h)

PRESSURE
to 200 PSI
(14 BAR)

TEMPERATURE
-120°F to +500°F
(-85°C to +260°C)

VISCOSITY
28 to 2,000,000 SSU
(1 to 440,000 cSt)



PERFORMANCE

Model	Port Size	Port Type	Max Capacity	Max Pressure	Speed	Temperature
Tulare 5	.5"	NPT	1.5 GPM (.3 m3/H)	200 PSI (14 Bar)	1750	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 75	.75"	NPT	3 GPM (.7 m3/H)	200 PSI (14 Bar)	1750	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 100	1"	NPT	8 GPM (1.8 m3/H)	200 PSI (14 Bar)	1750	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 153	1.5"	NPT / Flange	15 GPM (3.4 m3/H)	200 PSI (14 Bar)	1750	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 156	1.5"	NPT / Flange	30 GPM (6.8 m3/H)	200 PSI (14 Bar)	1750	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 215	2"	NPT	67 GPM (15 m3/H)	200 PSI (14 Bar)	1450	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 218	2"	NPT	80 GPM (18 m3/H)	200 PSI (14 Bar)	780	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 220	2"	NPT	90 GPM (20 m3/H)	200 PSI (14 Bar)	1450	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 223	2"	NPT	100 GPM (23 m3/H)	200 PSI (14 Bar)	780	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 231	2"	NPT	135 GPM (31 m3/H)	200 PSI (14 Bar)	640	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 250	2.5"	Flange	135 GPM (31 m3/H)	200 PSI (14 Bar)	640	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 332	3"	Flange	140 GPM (32 m3/H)	200 PSI (14 Bar)	520	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 345	3"	Flange	200 GPM (45 m3/H)	200 PSI (14 Bar)	640	Iron: -60°F to +450°F | Steel: -20°F to +800°F Stainless Steel: -120°F to +500°F
Tulare 468	4"	Flange	300 GPM (68 m3/H)	200 PSI (14 Bar)	520	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 495	4"	Flange	420 GPM (95 m3/H)	200 PSI (14 Bar)	420	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 611	6"	Flange	500 GPM (114 m3/H)	200 PSI (14 Bar)	520	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 613	6"	Flange	600 GPM (136 m3/H)	200 PSI (14 Bar)	350	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 825	8"	Flange	1,100 GPM (250 m3/H)	200 PSI (14 Bar)	280	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F
Tulare 1036	10"	Flange	1,600 GPM (363 m3/H)	200 PSI (14 Bar)	280	Iron: -60°F to +450°F Stainless Steel: -120°F to +500°F

FEATURES & BENEFITS

- For corrosion resistance over a wider pH range
- Non-galling gear materials available for handling thin liquid applications

TYPICAL APPLICATIONS

- Rugged and reliable, yet economical
- Widest range of sizes and options available to suit almost any non-corrosive application
- Tightest clearances for high efficiency and excellent priming capability

PORTING

- Right Angle (90°) (Rotatable Casing)
- Opposite (180°) (Rotatable Casing)
- NPT
- Flanged (ANSI or DIN Compatible)

SEALING

- Packing
- Behind the Rotor Seal
- Component Mechanical Seal
- Cartridge Mechanical Seal
- Cartridge Triple Lip Seal
- API 682 Seal
- Balanced Seal
- Sealless Mag Drive

OPTIONS

- Jacketing

MOUNTING

- Foot Mount