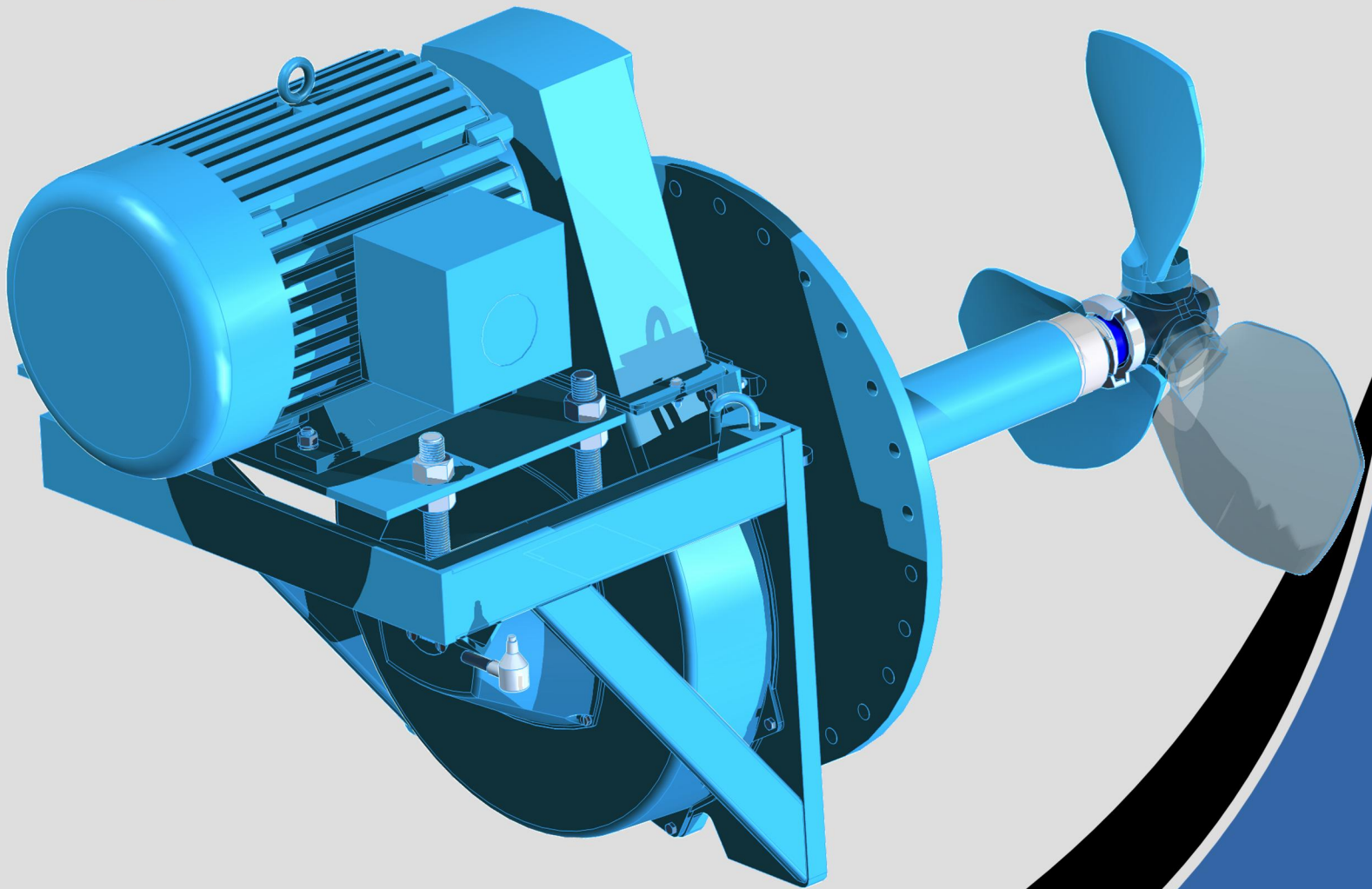


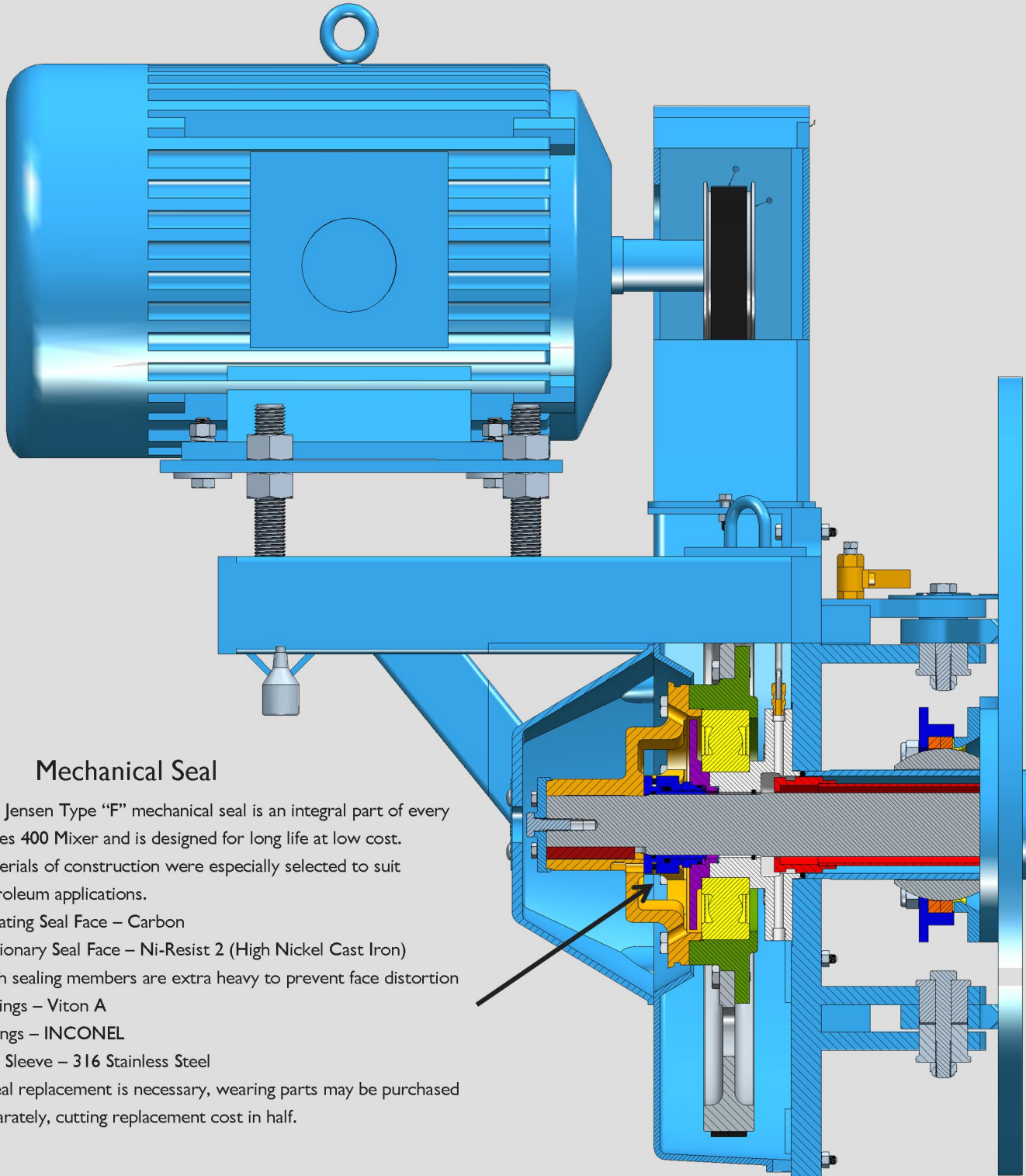
Jensen **Mixers**



SI8H-3

Series
400
Mixers

MODEL	420	450	480
H.P. (MAX)	10	30	75
SHAFT R.P.M.	425	425	425
CRITICAL SPEED	2,360 RPM	1,960 RPM	2,520 RPM



Mechanical Seal

The Jensen Type "F" mechanical seal is an integral part of every Series 400 Mixer and is designed for long life at low cost. Materials of construction were especially selected to suit petroleum applications.

Rotating Seal Face – Carbon

Stationary Seal Face – Ni-Resist 2 (High Nickel Cast Iron)

Both sealing members are extra heavy to prevent face distortion

O-rings – Viton A

Springs – INCONEL

Seal Sleeve – 316 Stainless Steel

If seal replacement is necessary, wearing parts may be purchased separately, cutting replacement cost in half.

MIXER

Jensen standard materials offer optimum performance in any hydrocarbon application.

Shaft and wear sleeve – 416 Stainless Steel

Lock ring, Lock bushing – 316 Stainless Steel

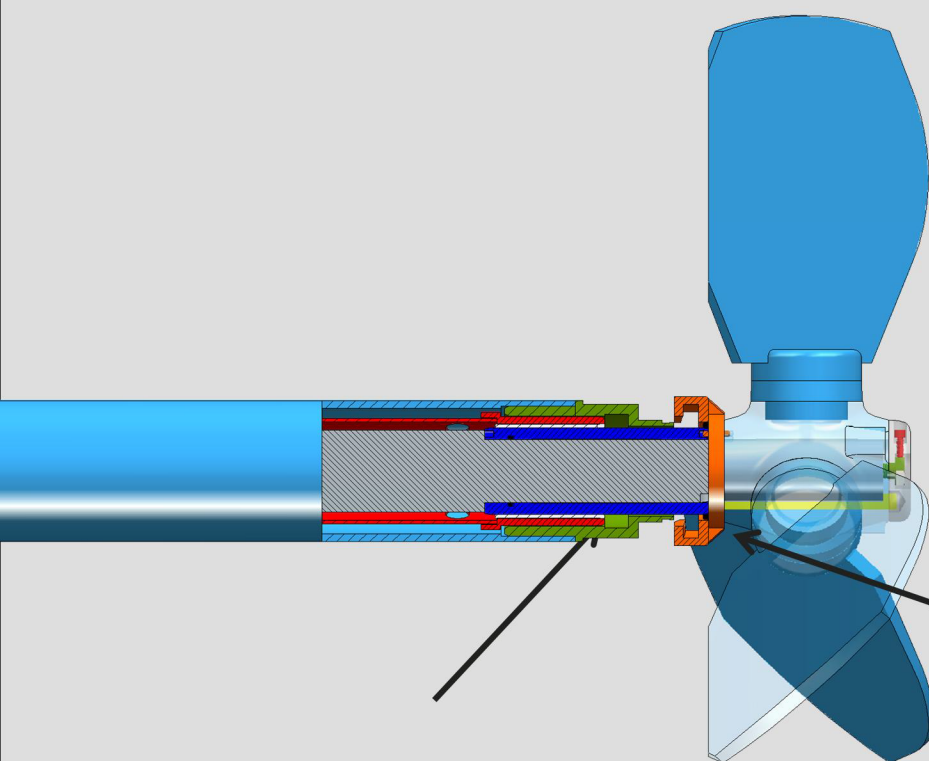
Propeller - Cast Steel

Drive Yoke – 356-T6 Aluminum

O-Rings – Viton A

The Jensen Series 400 Mixer is supported entirely by the tank man-way or nozzle. No tie rods, bases or other external supports are used. Light weight and low-overhang design are the keys to this money-saving feature.

Support for the propeller shaft is provided by the main thrust bearing at the outboard end of the mixer and by the shaft end bearing close to the tank shutoff device. The long bearing span eliminates virtually any possibility of shaft whip. All moving parts are completely enclosed by protective covers.



The end bearing material is solid Tungsten Carbide for greatest

The rugged V-Belt drive train in the series 400 Mixers is designed for long life and maximum reliability. Recent advances in V-belt technology have largely eliminated the need for frequent belt inspection and adjustment.

Drive pulley is machined steel.

Ganged V-belt specifications

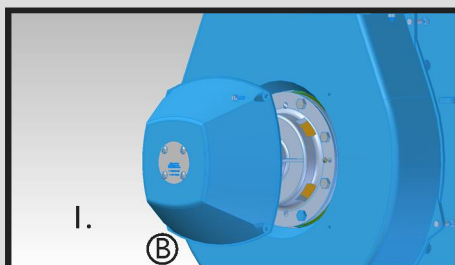
Mixer	No. Belts	Section	Length
420	1	3VX	45"
450	1	3VX	71"
480	2	3VX	100"

The tank shutoff device is keyed to the shaft and seated against the propeller. Corrosion resistant material and self-cleaning design assure positive sealing even after years of service.

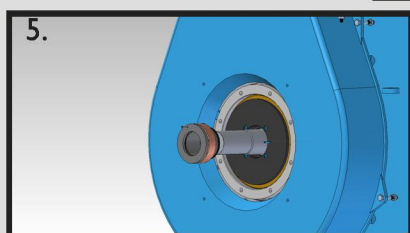
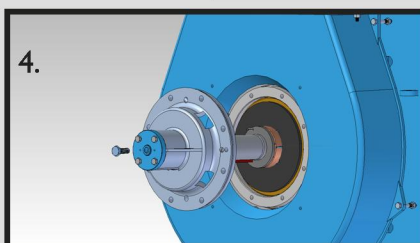
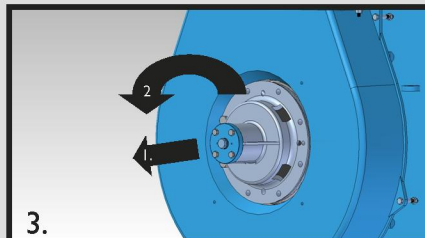
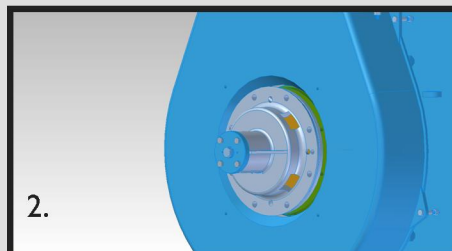
MECHANICAL SEAL REPLACEMENT

Mechanical Seal

The mechanical seal is well enclosed for protection from the elements, yet is easily exposed for inspection. A drain hole (B) in the yoke cover is provided for leak detection. Should complete seal failure occur, product loss is restricted by the front close clearance shaft bearing.



1. Remove yoke cover
2. Remove yoke bolts
3. Pull shaft back to stop then turn counter clockwise until lock engages and shaft stops (90 degrees or more)
4. Remove yoke
5. Remove the seal.



The cartridge design simplifies removal insuring positive seal face protection during change out.

It takes longer to read this brochure than it does to change our seals.

SELECTION

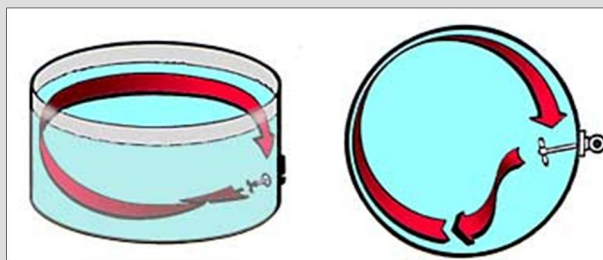
Selection

Defining your requirement and selecting the right mixer to do the job is most important. Jensen offers a mixer specifically tailored to every need.

Mixer application can be separated into two categories:

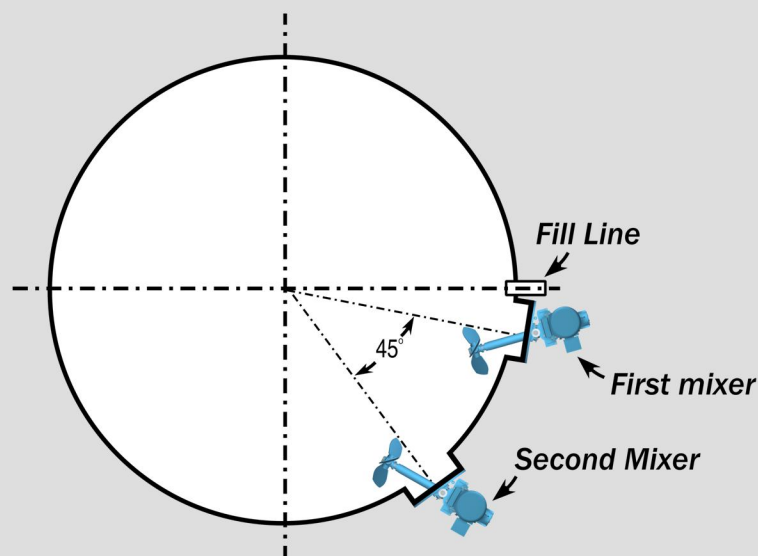
Blending

Blending includes the prevention of stratification in blended product, elimination of solidification and crusting at the product surface, heat transfer for uniform product temperature and blending two miscible fluids. All of these applications require basically the same approach with respect to fluid flow patterns and mixer horsepower rating. It is generally accepted that the most desirable flow pattern in blending operation is a slight horizontal "swirl" combined with considerable vertical turnover.



To accomplish this, Jensen Fixed Angle mixers are installed at a slight angle with respect to the tank center line. This angle will vary from 10 degrees in large tanks to 7 degrees in small tanks. In most cases it is desirable to locate the mixer close to and clockwise from the fill line as shown.

Operating procedure is one of the most important factors affecting blending applications; engineers should give special attention to this as required horsepower in identical tanks may vary greatly due to different procedures



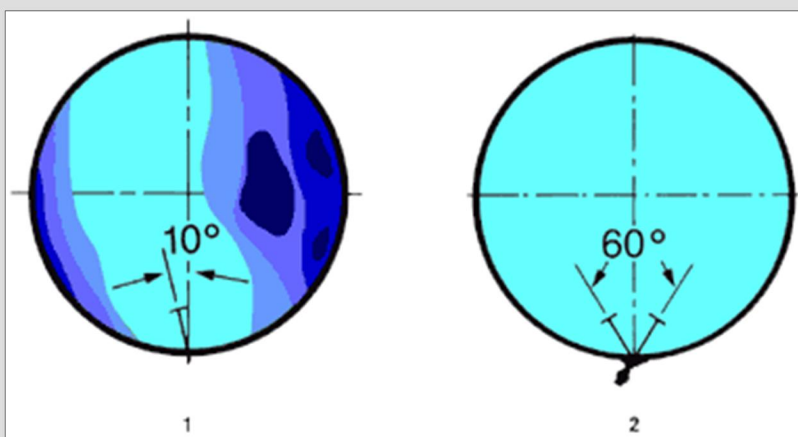
Jensen process recommendations are fully guaranteed. Jensen Mixers are guaranteed against defects for 12 months.

Cleaning –

Customers removing sediment accumulation from tank bottoms should select the Jensen Model 400-VA Vari-Angle Mixer. In cases where both services are required, the Vari-Angle should be selected.

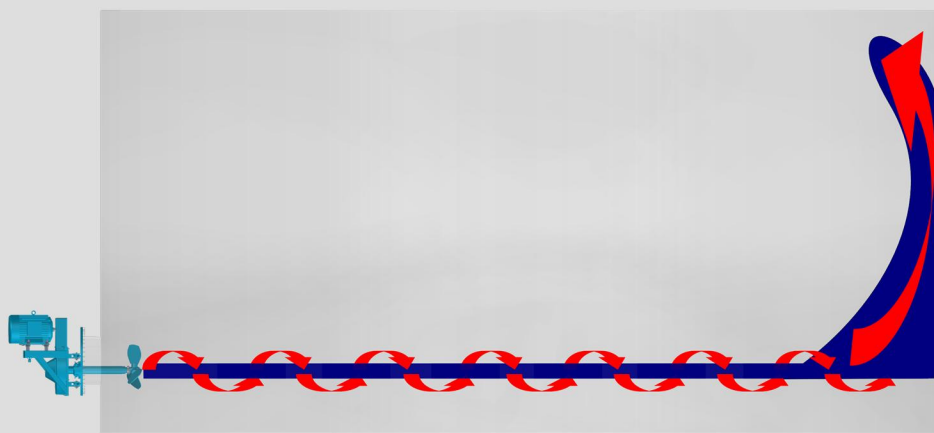
There are significant differences between blending and cleaning operations which must be recognized when applying side entering mixers to crude oil storage tanks.

The flows patterns established by blending mixers allow sediment accumulations as indicated by figure 1. These “dead spots” are not affected by increased running time or by ineffective reversal of propeller operation. They are removed only by the direct sweeping action of the propeller flow stream.



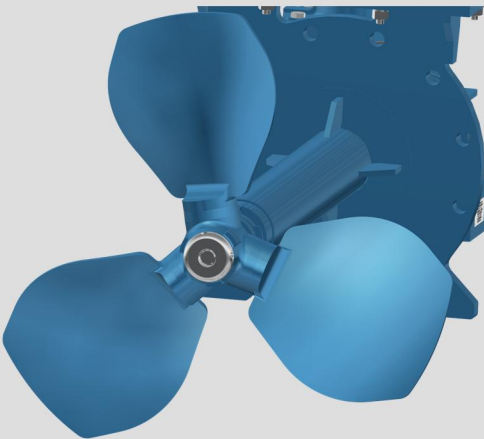
The unique Jensen Vari-Angle feature allows this flow stream to be directed to any area of the tank assuring complete tank cleaning.

Jensen Vari-Angle Mixer will remove sediment build-up from old tanks.



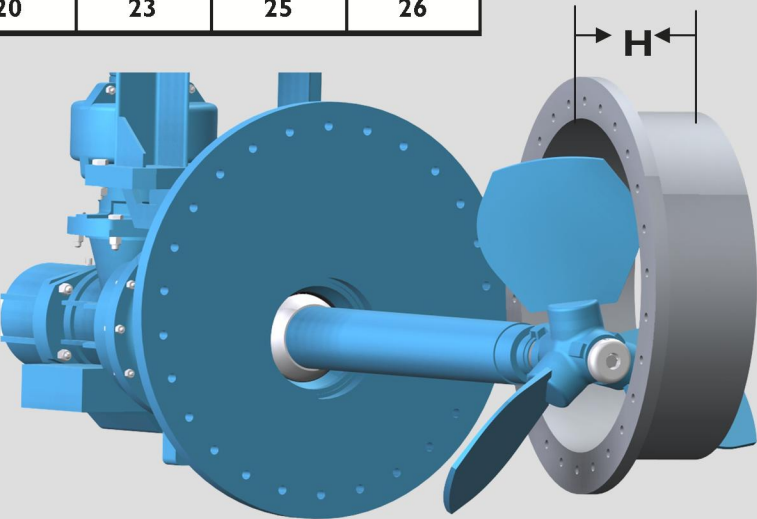
PROPELLER

The exclusive Jensen Pitch-Adjusted propeller is a highly efficient, three blade, marine type propeller precision set and *permanently fixed* at our factory to assure superior mixing performance in each individual application. Factory selection of optimum pitch/diameter ratio results in high thrust, increased flow and maximum utilization of available power.

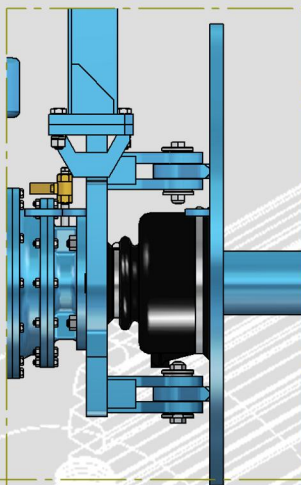


PROPELLER SIZE						
H	20"	23"	26"	29"	32"	35"
Manway inside diameter required to insert propeller.						
4	14	16	17	19	20	22
5	15	16	18	19	21	22
6	16	17	19	20	22	24
7	16	19	19	22	24	25
8	16	19	20	23	25	26

Jensen Pitch-Adjusted propeller can easily be installed through most standard manways without removing the prop from the mixer shaft or entering the tank.

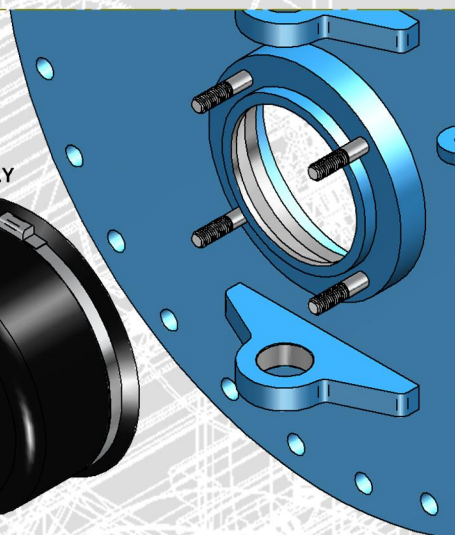


The Jensen Pitch-Adjusted propeller is the most tested and most inspected propeller available on any mixer.



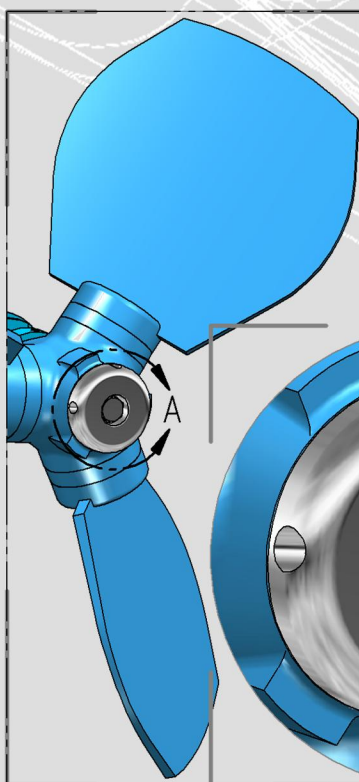
FLEX BOOT

NEW MIXER BOOT ASSEMBLY



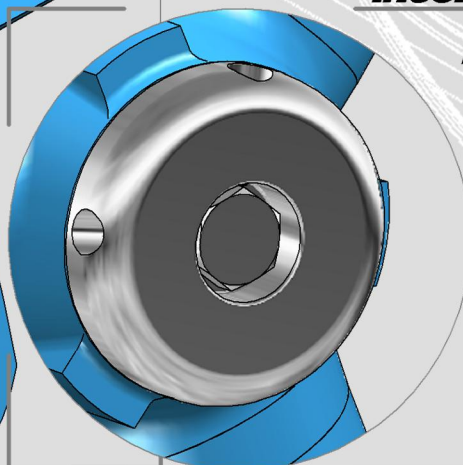
RETRO FIT FIELD SPLIT BOOT ASSEMBLY

***-PROTECTS AGAINST SAND, DUST,
WEATHER AND THE OCCASIONAL PAINT
GUN.***



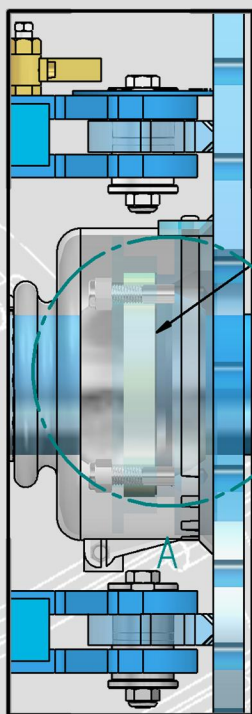
SHAFT LOCK WASHER

***- INSURES PROPER
LOCKING OF PROP
- STAINLESS STEEL
- UNIQUE ENGINEERED
DESIGN***

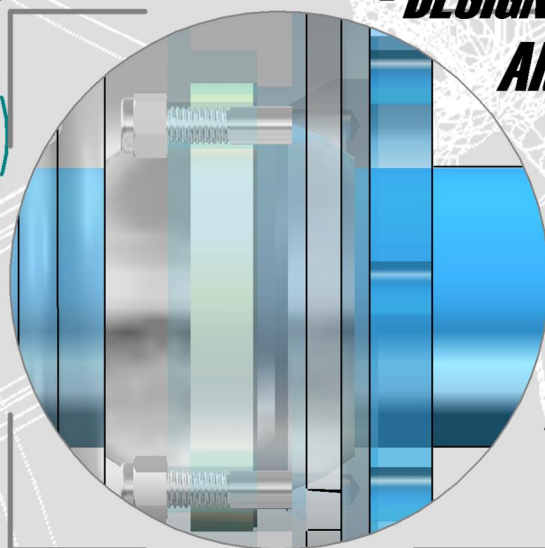


DETAIL A

ADVANCEMENTS



FERRULE SEAL

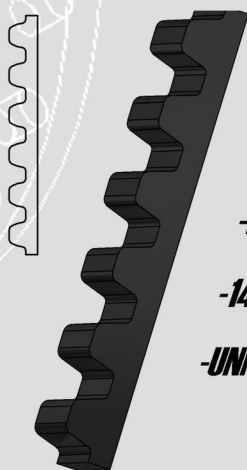


DETAIL A

***- DESIGNED FOR PERFECT FIT
AROUND VA BALL AND
NOZZLE***

- SUPERIOR SEALING

***- CHEMICALLY INERT
MATERIAL***



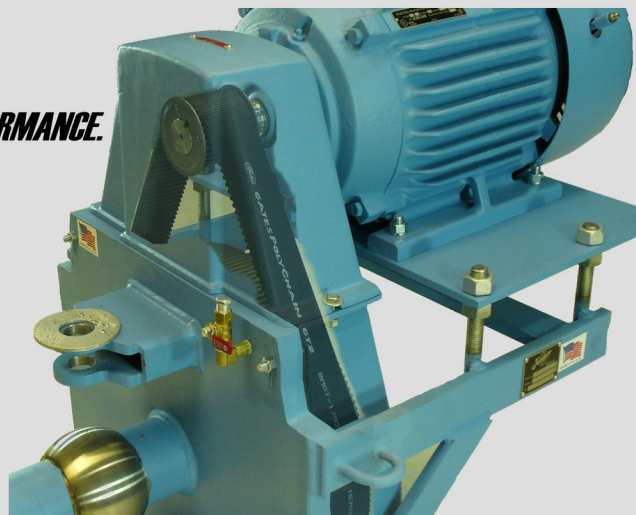
GATES POLYCHAIN BELT

-SUPERIOR FLEX FATIGUE RESISTANCE

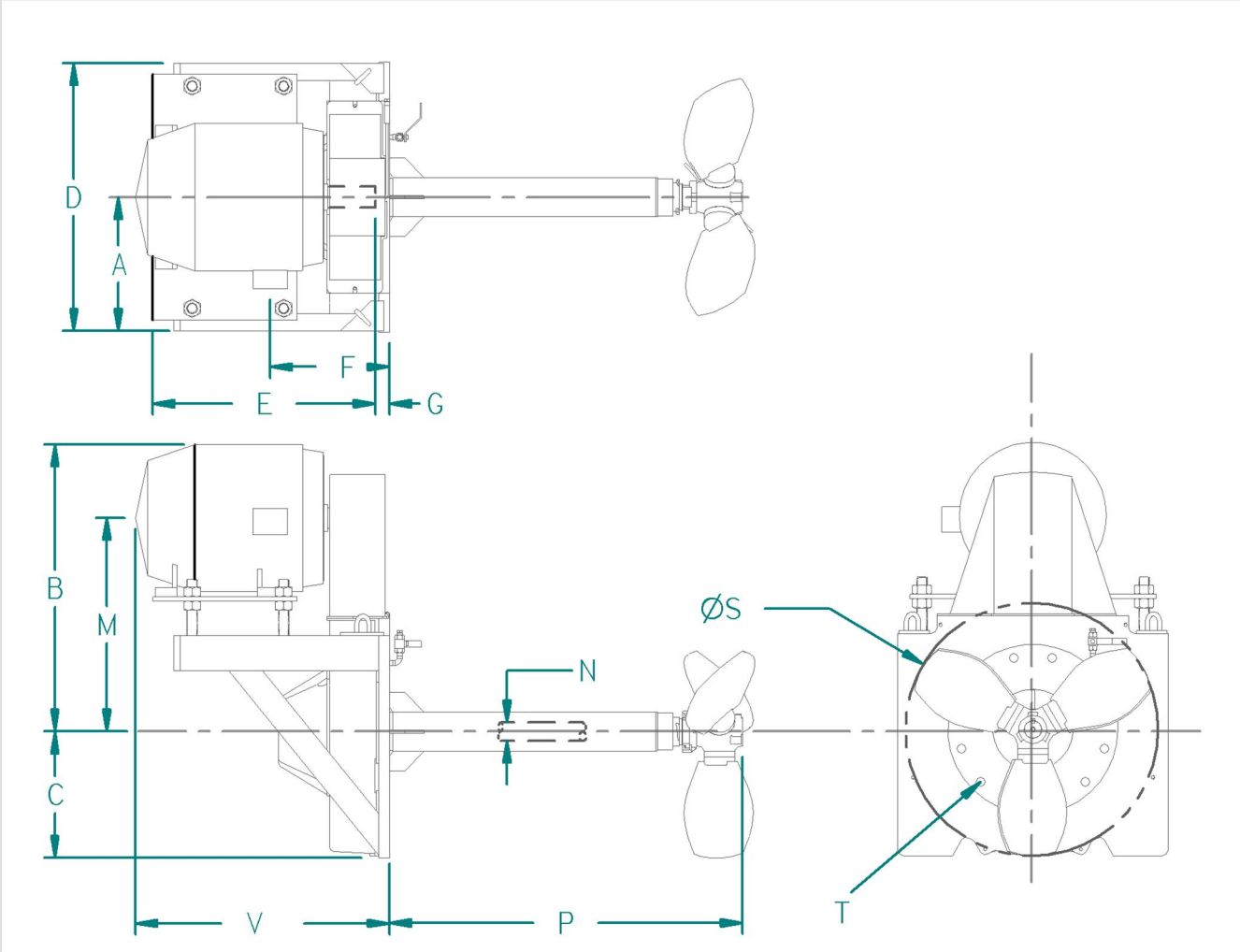
-LONGER RUNNING TIME

-14MM PITCH

-UNMATCHED PERFORMANCE.



FA DIMENSIONS



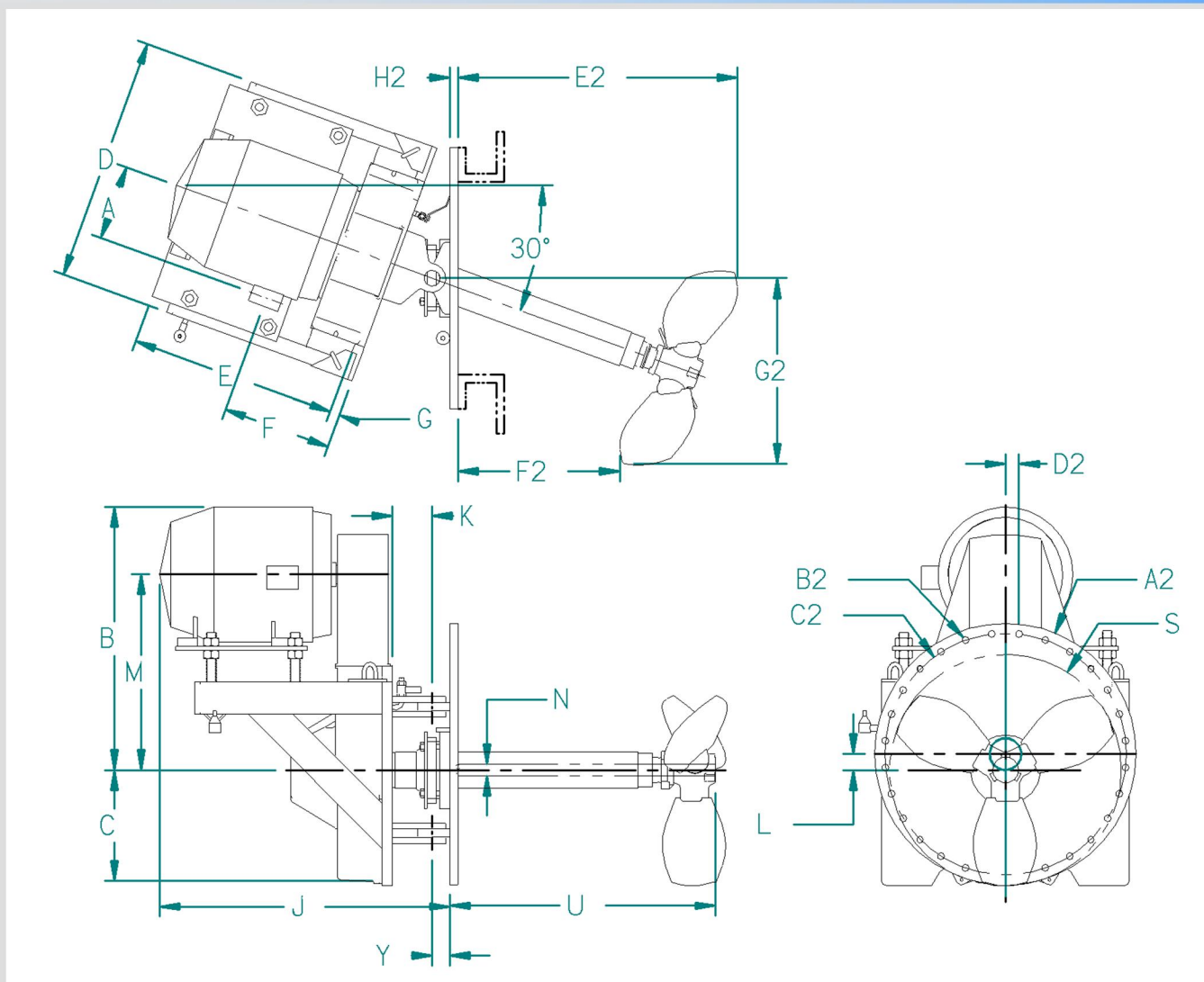
ALL DIMENSIONS IN INCHES

	A	B	C	D	E	F	G	M
420-			6.75	13.25	14.75		2.75	11.44
450-			11.00	22.25	21.50		1.88	15.25
480--			14.50	28.25	23.50		2.12	23.80

	N	P	R	S	T*	V
420-	1.250	31.125	5.87		8" 150# ANSI	
450-	1.625	36.375	8.00		10" 150# ANSI	
480--	2.625	41.375	7.38		12" 150# ANSI	

* TOP HOLES STRADDLE
VERTICAL CENTER LINE

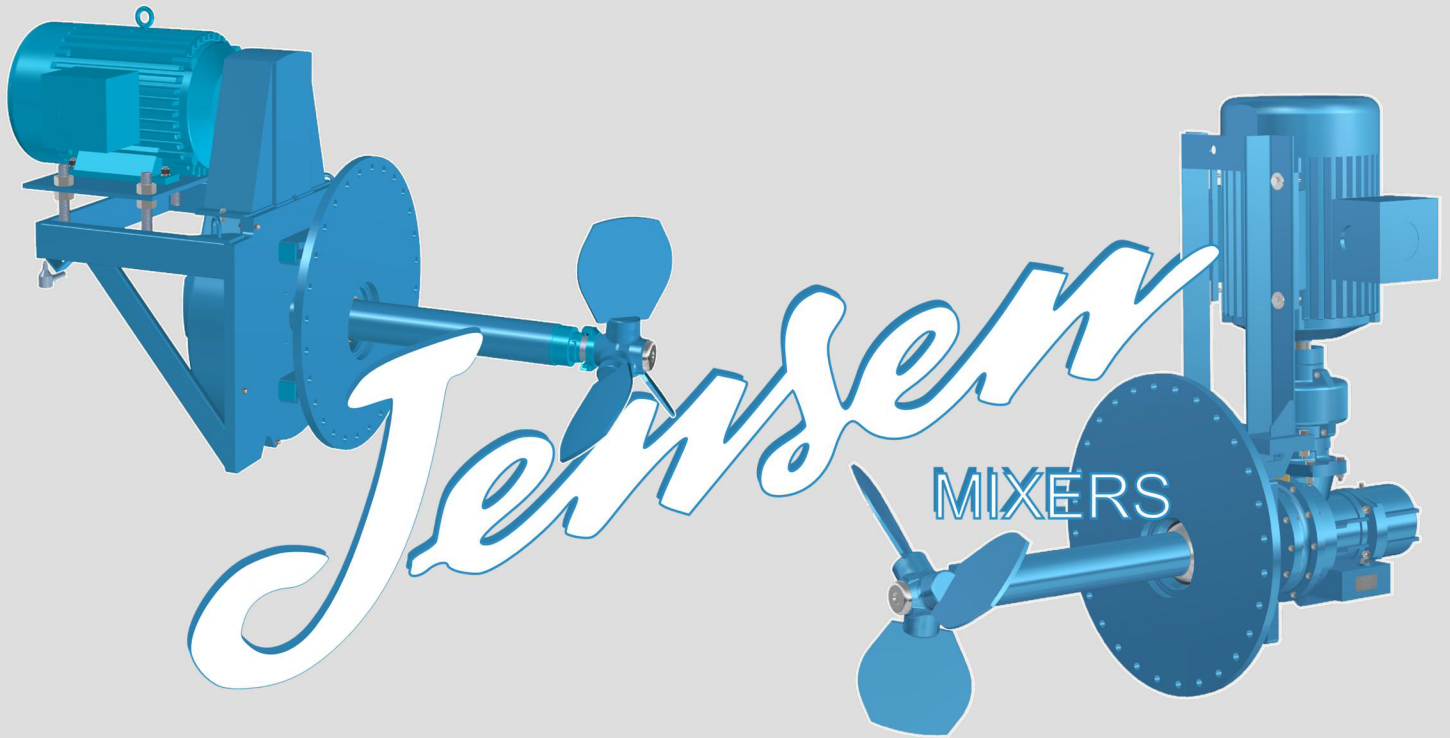
VA DIMENSIONS



ALL DIMENSIONS IN INCHES

	A	B	C	D	E	F	G	J	K
420-VA-			6.75	13.25	14.75		2.75		3.75
450-VA-			11.00	22.25	21.50		1.88		4.37
480--VA-			14.50	28.25	23.50		2.12		23.80
	M	N	R	S	U	Y	E2	F2	G2
420-VA-	11.44	1.250	5.875		25.37	2.00			
450-VA-	15.25	1.625	8.000		29.75	2.25			
480--VA-	23.80	2.625	7.375		34.12	2.25			

L	A2	B2		C2	D2			H2
MIXER C.L. FROM HORIZONTAL C.L.	PLATE O.D.	BOLT HOLES		BOLT CIRCLE DIA.	TOP HOLES STR. VERT.C.L.	TOP HOLE		PLATE THICKNESS
						ON VERT. C.L.	CLOCKWISE FROM C.L.	



Jensen
Mixers International, Inc.

LIMITED WARRANTY

Jensen Mixers are warranted against defects in materials or workmanship for a period of 12 months following date of purchase. This warranty is limited to replacement or repair of the agitator by Jensen only and does not cover consequential damages, removal, freight or re-installation. Electric motors are warranted by their respective manufacturers and are excluded from Jensen warranty.