

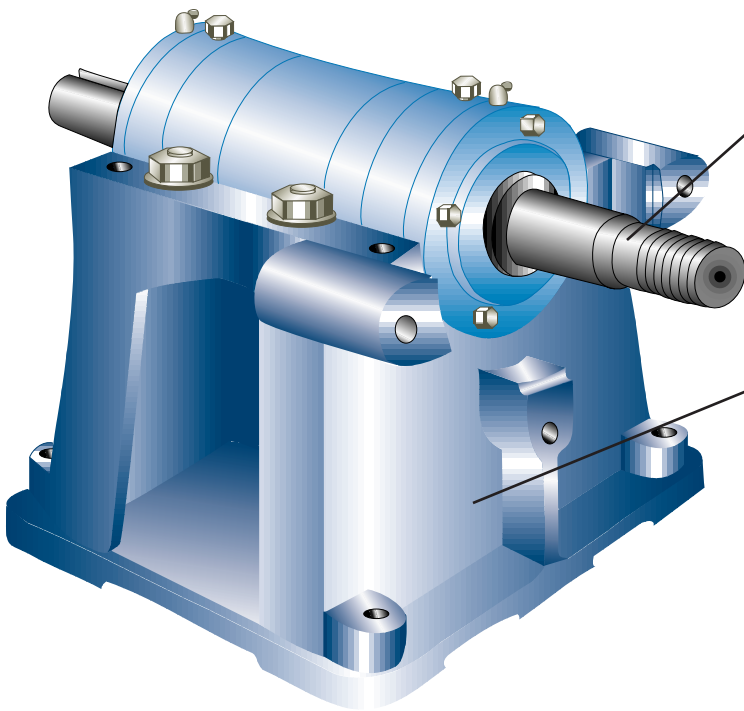
TOBEE

Always do your best pump®



**Series TH, THH,
TM and TL Slurry Pumps**

Tobee Series TH Pump

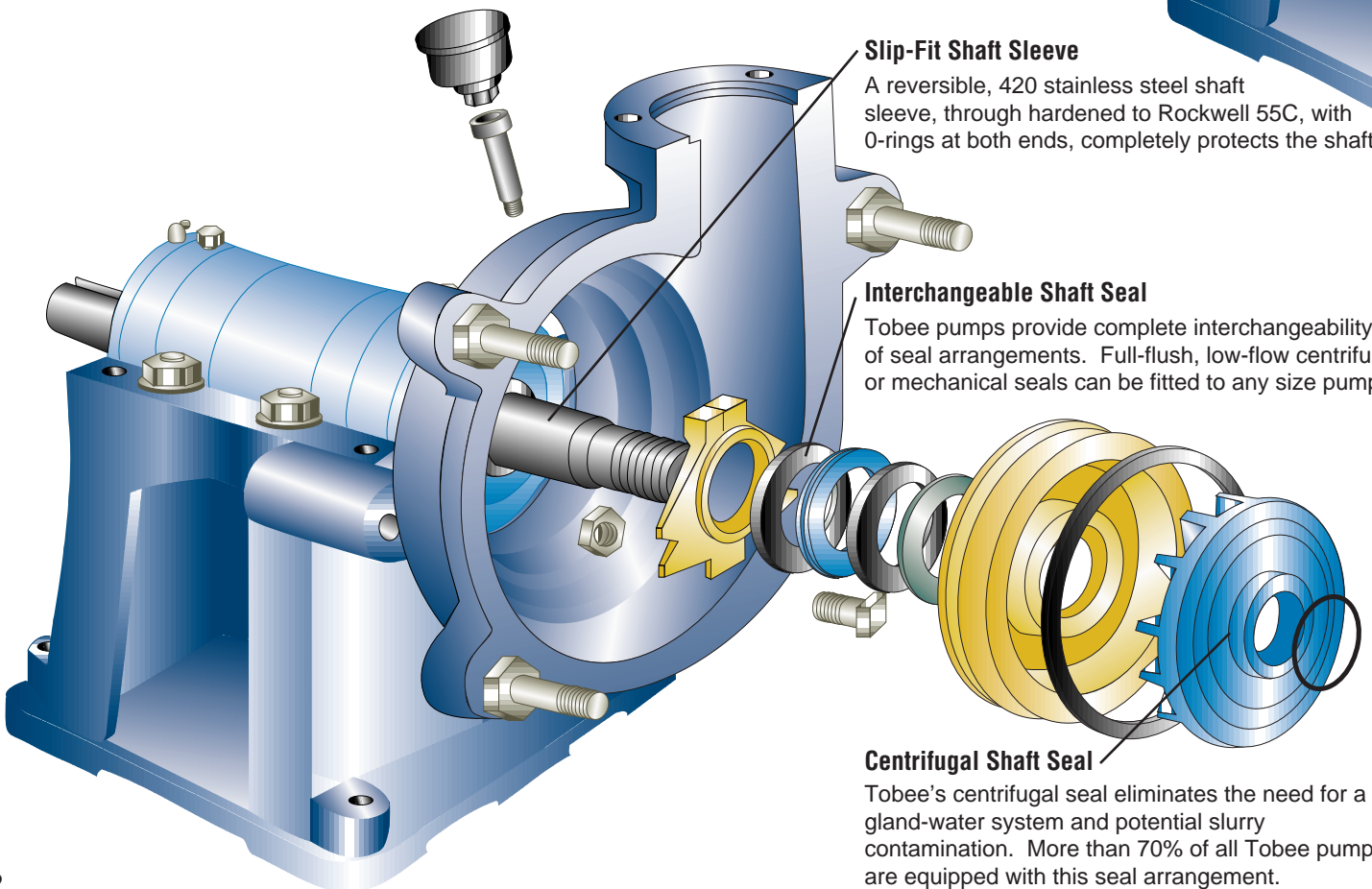
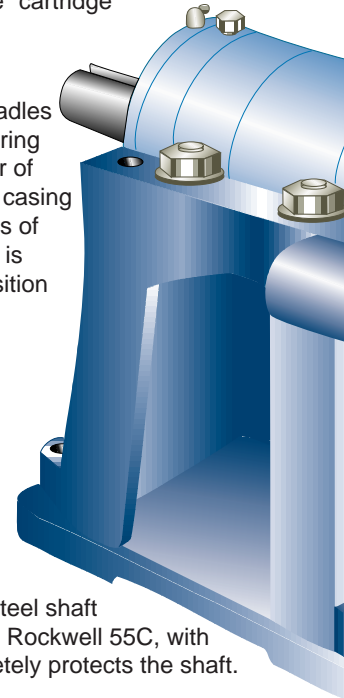


Cartridge-type Shaft and Bearing Assembly

A large diameter shaft with a short overhang minimizes deflection and vibration. Heavy-duty, grease-lubricated cylindrical and/or taper roller bearings are enclosed in a cartridge-type housing protected at both ends by a rotating labyrinth with double piston ring and patented -10 grease purged lip seal (see Figure 1 on page 6). Only four through bolts are required to hold the "cartridge" assembly in the frame.

Pump Frame

A rigid, one-piece casting cradles the "cartridge" shaft and bearing assembly. A minimal number of through bolts hold the pump casing to the frame. An easy means of external impeller adjustment is provided in a convenient position below the bearing housing.



Slip-Fit Shaft Sleeve

A reversible, 420 stainless steel shaft sleeve, through hardened to Rockwell 55C, with O-rings at both ends, completely protects the shaft.

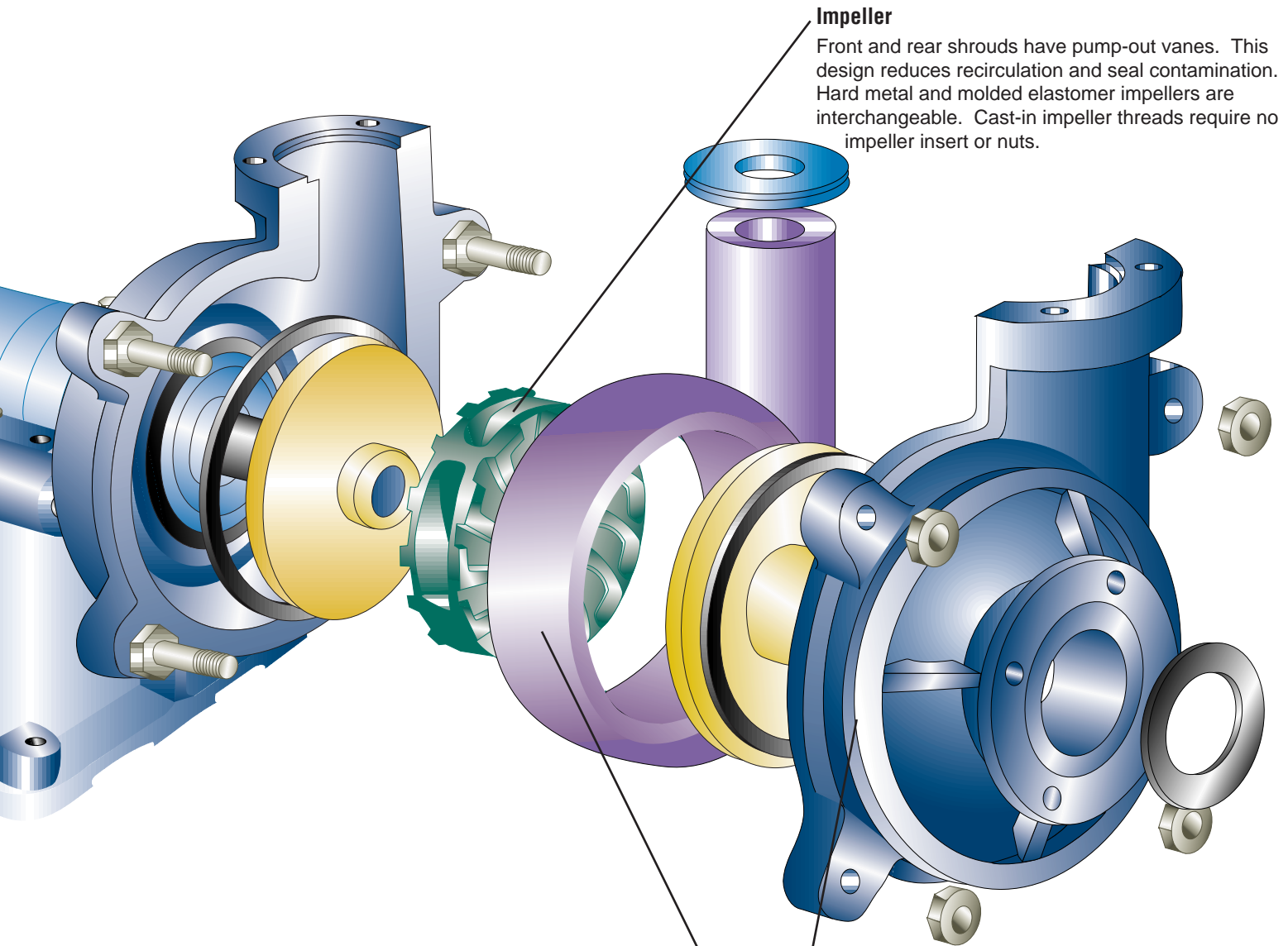
Interchangeable Shaft Seal

Tobee pumps provide complete interchangeability of seal arrangements. Full-flush, low-flow centrifugal, or mechanical seals can be fitted to any size pump.

Centrifugal Shaft Seal

Tobee's centrifugal seal eliminates the need for a gland-water system and potential slurry contamination. More than 70% of all Tobee pumps are equipped with this seal arrangement.

umps: Design Features



Impeller

Front and rear shrouds have pump-out vanes. This design reduces recirculation and seal contamination. Hard metal and molded elastomer impellers are interchangeable. Cast-in impeller threads require no impeller insert or nuts.

EASE OF MAINTENANCE FEATURES:

- Through-Bolt Design
- Minimum Number of Casing Bolts
- Zinc Chromate and Stainless Steel Nuts and Bolts
- Slip-Fit Shaft Sleeve
- Cartridge-Type Shaft and Bearing Assembly
- Cast-In Impeller Threads
- Impeller-Release Collar on Large Models
- Liners Positively Attached

Outer Casing

Casing halves of cast or ductile iron with external reinforcing ribs contain the wear liners and provide high operating pressure capabilities.

Positively Attached Liner

Hard metal liners are interchangeable with pressure molded elastomers. The elastomer liners are bolted, not bonded, to the outer casing. Elastomer seal rings back all liner joints.

Tobee Typical

Elastomer Lined, Gland Sealed

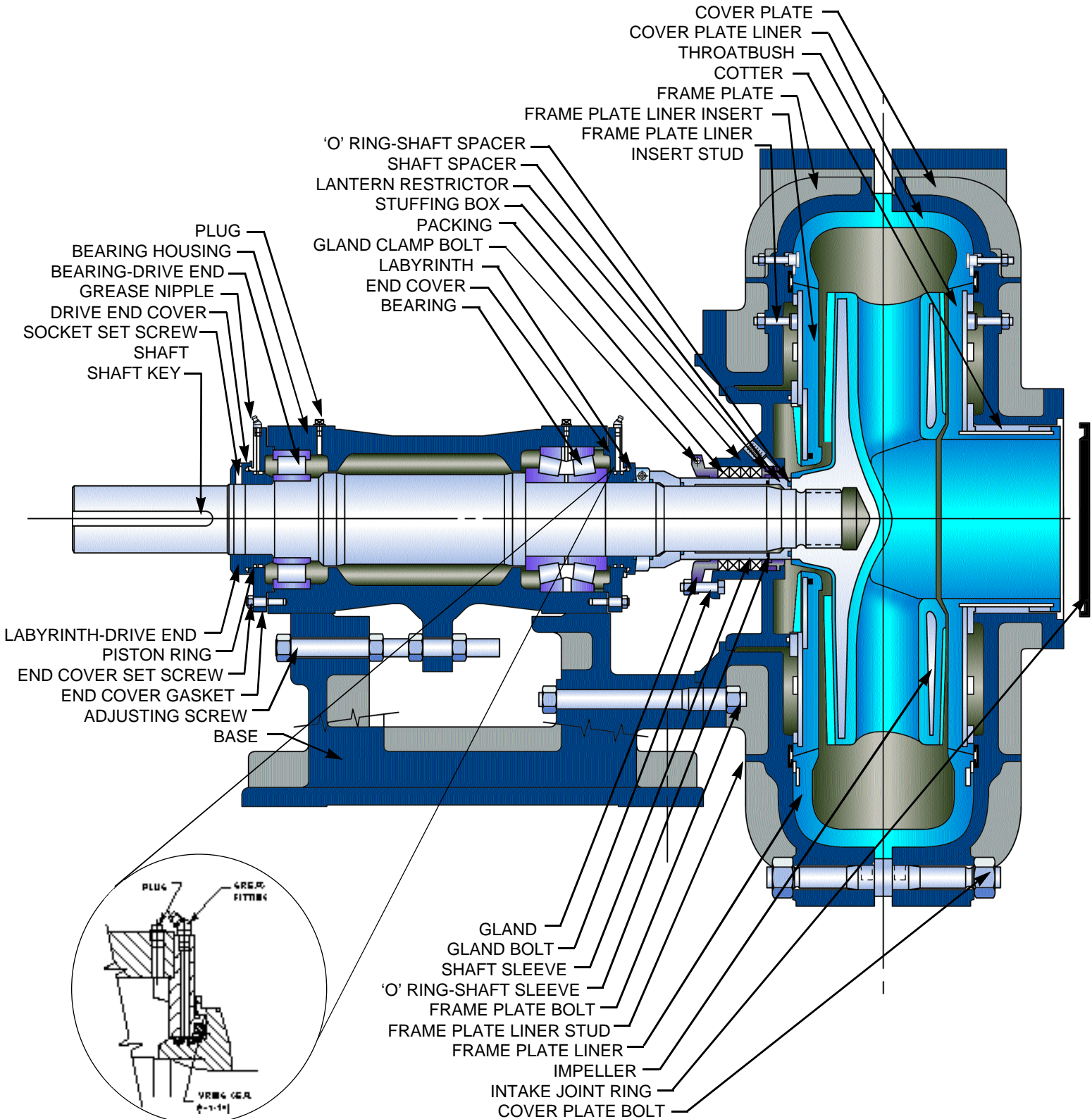


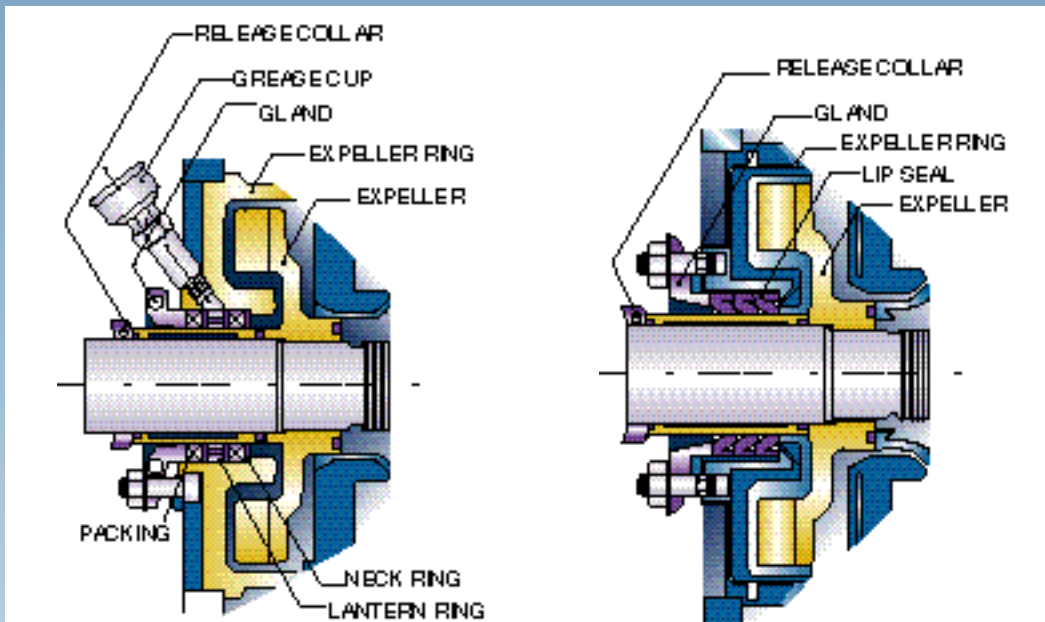
Figure 1
Standard -10 Bearing Seal
(Retrofitable to older models)

All impellers and liners are available in alloy or elastomer materials.

al Cross-Section

VARIATIONS OF THE TOBEE CENTRIFUGAL SHAFT SEAL

AVAILABLE WITH STANDARD OR OPTIONAL CENTRIFUGAL SEALS

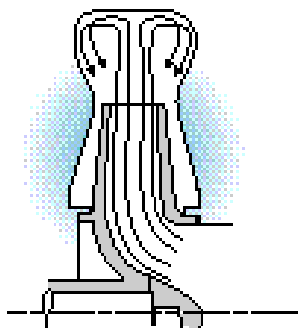


METAL LINED

The expeller ring is interchangeable with a gland sealed stuffing box. The expeller and expeller rings are made of 650 BHN high chrome iron as a standard but can be provided in other materials suitable for specific applications.

ELASTOMER LINED

RULE OF THUMB: If the suction pressure of the pump is no greater than 10% of the discharge pressure, the application is suitable for a centrifugal shaft seal. For variations from this general rule, consult Tobee pump.

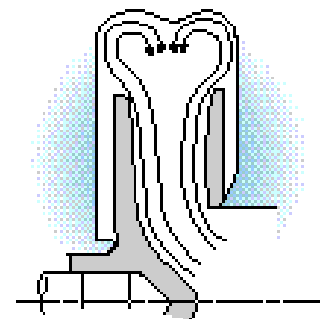


CONVENTIONAL DESIGN

UNIQUE TOBEE IMPELLER DESIGN

Outward spiral of slurry in conventional pumps causes serious recirculation and consequent wear at the close impeller clearances.

The pump-out vanes and concave impeller vane of a Tobee pump force the slurry to form a double inward spiral. This results in uniform wear, a greater utilization of wearing parts, an increased shaft seal life, and sustained high efficiency.



TOBEE DESIGN

Tobee Pumps: O

Series "TH"

PUMP SIZE	A	B	C	D	U mm	Key Size	E	F	G	H	J	K	L	M	N	WT/LBS	
																METAL	RUBBER
TH1.5/1B	22.95	11.61	9.76	7.76	28	8x7	3.11	8.11	7.13	3.86	6.73	1.81	-	4.17	.74	195	170
THH1.5/1C	29.88	15.98	12.24	10.00	42	12x8	4.76	10.59	10.63	7.64	10.00	-	.43	4.76	2.61	700	-
TH2/1.5B	23.31	11.61	9.76	7.76	28	8x7	3.11	8.54	7.99	4.49	7.24	1.31	-	4.49	.86	345	260
TH3/2C	30.24	15.98	12.24	10.00	42	12x8	4.76	11.02	9.37	5.43	8.27	2.81	-	5.94	1.56	435	340
THH3/2D	38.82	19.37	14.33	12.99	65	18x11	6.46	15.28	15.12	10.00	14.49	-	2.00	7.99	3.28	1550	-
THH3/2Q	40.16	21.26	18.11	11.81	60	18x11	5.91	15.31	15.12	10.00	14.40	-	3.19	7.99	2.22	1735	-
TH4/3C	33.19	15.98	12.24	10.00	42	12x8	4.76	13.90	11.50	5.87	10.31	.93	-	7.36	2.11	550	520
TH4/3D	37.13	19.37	14.33	12.99	65	18x11	6.46	13.90	11.50	5.87	10.31	3.94	-	7.36	2.04	700	640
THH4/3E	48.82	24.49	17.64	17.99	80	22x14	8.74	19.37	19.37	12.99	17.00	-	-	9.76	3.12	2750	-
THH4/3R	50.98	26.77	23.23	13.78	85	22x14	8.46	19.29	19.29	12.99	17.00	-	4.09	9.76	1.83	3090	-
TH6/4D	40.20	19.37	14.33	12.99	65	18x11	6.46	16.69	15.98	9.02	13.31	.43	-	8.62	2.57	1475	1000
TH6/4E	46.38	24.49	17.64	17.99	80	22x14	8.74	17.05	15.98	9.02	13.31	5.43	-	8.62	2.96	1950	1400
THH6/4F	61.26	33.74	24.96	24.02	100	28x16	10.98	23.03	24.25	16.26	21.50	1.00	-	12.01	2.96	5575	-
THH6/4S	65.67	36.22	30.71	17.72	120	32x18	11.02	23.15	24.25	16.26	21.50	-	5.28	12.01	3.04	6335	-
TH8/6E	51.26	24.49	17.64	17.99	80	22x14	8.74	21.93	21.69	12.52	18.11	-	2.44	11.50	3.23	3300	2165
TH8/6F	59.33	33.74	25.00	24.02	100	28x16	10.98	21.22	21.69	12.52	18.11	3.54	-	11.50	2.56	4000	3065
THH8/6T	89.57	45.28	40.94	25.59	150	36x20	13.78	33.54	32.87	22.99	32.01	-	6.30	15.51	6.93	14490	-
TH10/8F	64.80	39.02	27.76	24.02	100	28x16	10.98	26.89	26.50	16.50	25.00	-	.47	13.11	5.28	7040	5690
TH10/8ST	68.82	45.28	30.71	25.59	120	32x18	11.02	27.24	26.50	16.50	25.00	1.06	-	13.11	5.63	8250	6900
TH12/10F	67.76	39.02	27.76	24.02	100	28x16	10.98	29.65	29.76	18.27	26.50	-	4.09	15.00	4.25	8290	6190
TH12/10ST	71.50	45.28	30.71	25.59	120	32x18	11.02	30.00	29.72	18.27	26.50	-	2.56	15.00	4.60	9500	7400
TH14/12F	69.76	39.02	27.76	24.02	100	28x16	10.98	31.61	36.89	24.76	32.76	-	10.35	15.98	4.13	12890	9090
TH14/12ST	73.74	45.28	30.71	25.59	120	32x18	11.02	31.97	36.89	24.76	32.76	-	8.82	15.98	4.48	14100	10300
TH16/14TU	91.34	57.48	41.34	35.43	150	36x20	13.78	37.52	41.26	25.98	35.00	-	3.31	17.76	6.56	22000	-
TH20/18 TU																	

Note: U dimensions and key sizes are in millimeters. All others are in inches.

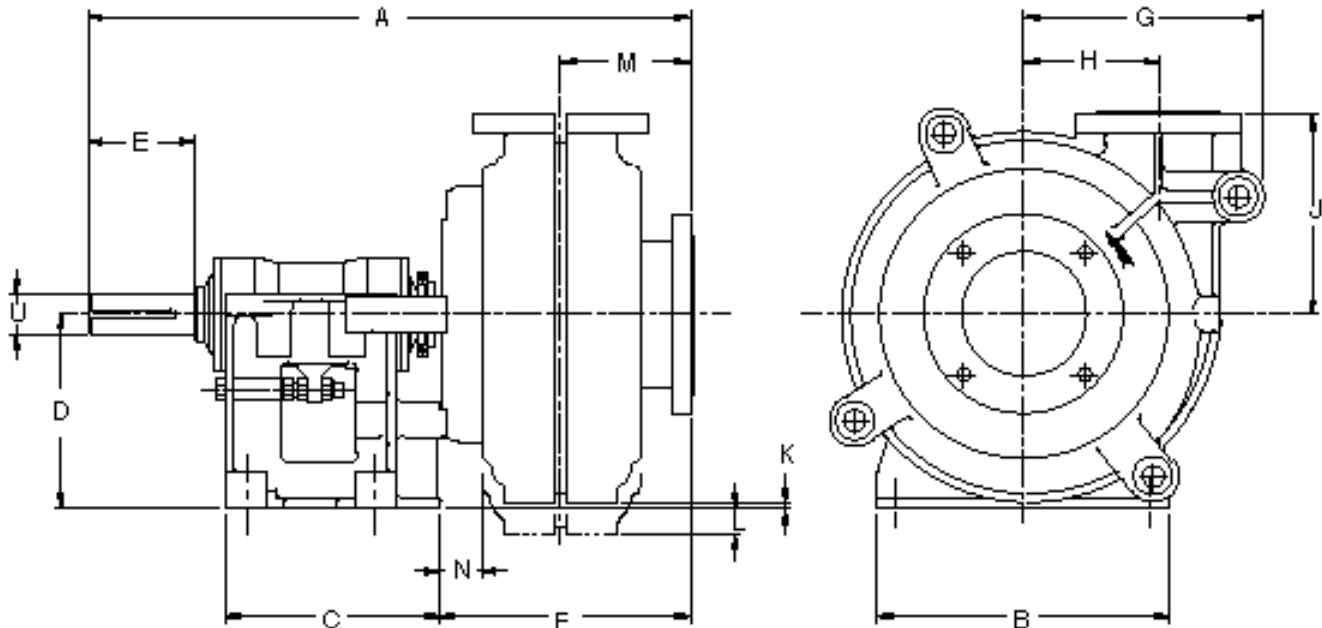
For installation, refer to certified drawings.

Outline Dimensions

Series "TL"

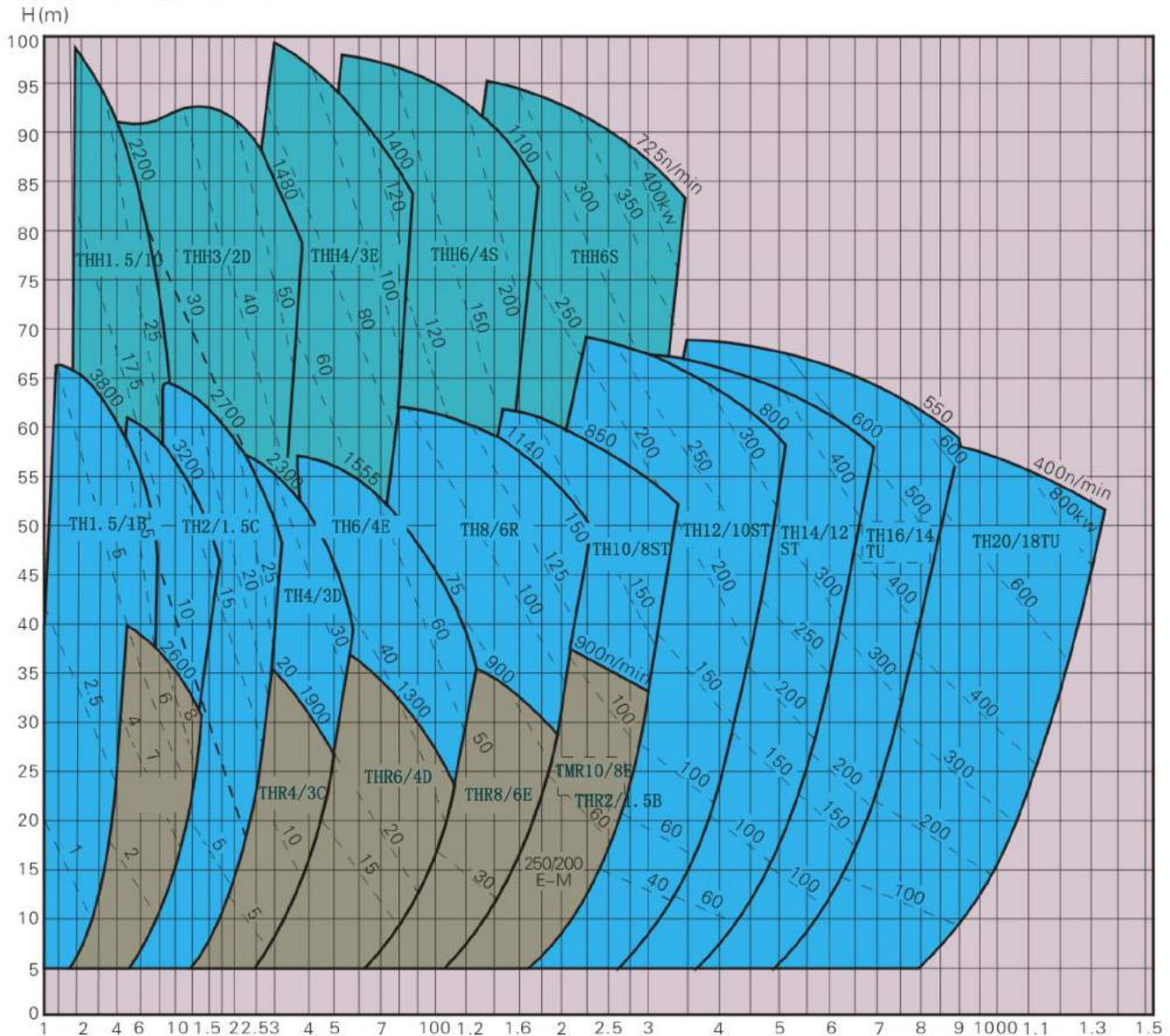
PUMP SIZE	A	B	C	D	U mm	Key Size	E	F	G	H	J	K	L	M	N	WT/LBS	
																METAL	RUBBER
TL20 A	18.15	11.26	8.27	5.75	20	6x6	2.24	6.06	5.67	3.39	5.04	1.22	-	3.54	.72	80	60
TL50 B	24.57	11.61	9.76	7.76	28	8x7	3.15	9.69	7.64	4.49	6.42	1.81	-	5.35	1.13	248	200
TL75 C	32.01	15.98	12.24	10.00	42	12x8	4.72	12.28	9.76	5.75	8.03	2.40	-	6.42	1.87	408	360
TL100 D	37.40	19.37	14.33	12.99	65	18x11	6.42	13.94	12.13	7.52	10.28	3.27	-	7.36	2.07	784	754
TL150 E	47.95	24.49	17.64	17.99	80	22x14	8.74	18.74	15.87	9.76	12.76	5.24	-	9.33	.71	1630	1580
TM200 E	52.64	24.49	17.64	17.99	80	22x14	8.74	22.99	24.13	15.00	18.50	-	3.27	12.52	1.97	3700	2650
TM200 F	60.67	33.74	25.00	24.02	100	28x16	11.02	22.52	24.13	15.00	18.50	2.76	-	12.52	1.54	4300	3250
TL250 E	53.07	24.49	17.64	17.99	80	22x14	8.74	23.54	27.36	17.24	18.50	-	5.75	12.76	1.29	4100	3050
TL250 F	60.98	33.74	25.00	24.02	100	22x14	11.02	23.03	27.36	17.24	18.50	.31	-	12.76	.78	4400	3350
TL300 R	57.48	36.22	23.23	17.72	85	22x14	8.46	25.83	29.13	18.70	22.44	-	7.28	11.81	3.62	5800	4500
TL300 S	67.72	36.22	30.71	17.72	120	32x18	11.02	25.39	29.13	18.70	22.44	-	7.28	11.81	3.18	6300	5000
TL350 S	69.92	36.22	30.71	17.72	120	32x18	11.02	27.36	32.48	20.87	24.41	-	9.72	13.38	2.38	7845	6100
TL400 ST	72.44	45.28	30.71	25.59	120	32x18	11.02	30.51	37.13	23.62	29.13	-	6.26	14.76	2.25	10225	7800
TL450 ST	73.82	45.28	30.71	25.59	120	32x18	11.02	32.28	40.75	25.98	31.50	-	8.74	15.75	1.94	12325	9275
TL500 ST	74.80	45.28	30.71	25.59	120	32x18	11.02	33.27	49.25	30.71	38.39	-	18.03	17.13	5.12	16000	12000
TL500 T	89.49	45.28	40.94	25.59	150	36x20	13.78	33.27	49.25	30.71	38.39	-	18.03	17.13	5.12	18000	14000
TL550 TU	94.49	57.48	41.34	35.43	150	36x20	13.78	40.55	51.69	33.86	38.39	-	9.53	19.69	3.17	24300	18200
TL650 TU	98.74	57.48	41.34	35.43	150	36x20	13.78	44.33	61.14	40.16	46.25	-	18.11	22.83	5.12	41365	30650
TL650 U	121.10	56.69	54.13	35.43	240	56x32	18.50	45.87	61.14	40.16	46.25	-	18.11	22.83	6.66	47740	36825

Note: U dimensions and key sizes are in millimeters. All others are in inches.



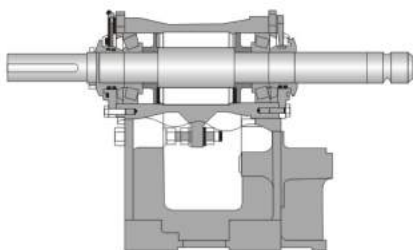
Tobee Pumps:

Series "TH" Use this coverage chart as a first guide only.

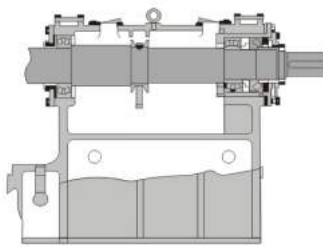


The Series "TH" slurry pumps are designed for continuous pumping of highly abrasive, high-density slurries at maximum heads.

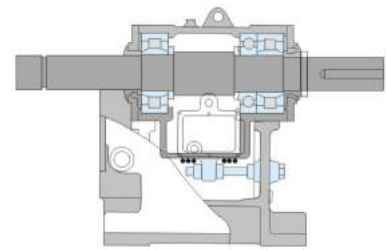
DRIVE MODULE DESIGN



Cylindrical bearing assembly using oil lubrication



Bearing assembly using oil lubrication with horizontally split casing



Innovative cylindrical bearing assembly using oil lubrication

Tobee Products



Horizontal Pumps

The Tobee horizontal pump provide a comprehensive range of centrifugal slurry pumps for use in mining, chemical and industrial applications.



Vertical Pumps

The Tobee Vertical pumps provide a simple yet rugged range of sump pumps specially developed for rugged cleanup and abrasive slurry applications.



Submersible Pumps

The Tobee Submersible pumps provide heavy duty all chrome wet end coupled with a submersible motor designed for the most demanding applications.



Metal Parts



Rubber Parts



Polyurethane Parts



Always do your best pump

HEBEI TOBEE PUMP CO., LIMITED

ADD:Hi-tech Development Zone | Shijiazhuang City | Hebei Province | China.



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