

## INTEGRAL IMPELLER AND SLEEVE

- “ONE-PIECE” impeller and shaft sleeve
- “NO” shaft sleeve o-rings required
- Semi-open type with pump-out vanes and balance holes designed to minimize axial unbalance and lower stuffing box pressure

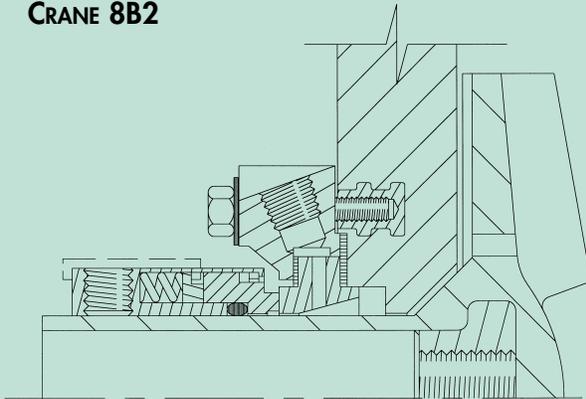


## MECHANICAL SEAL ARRANGEMENTS

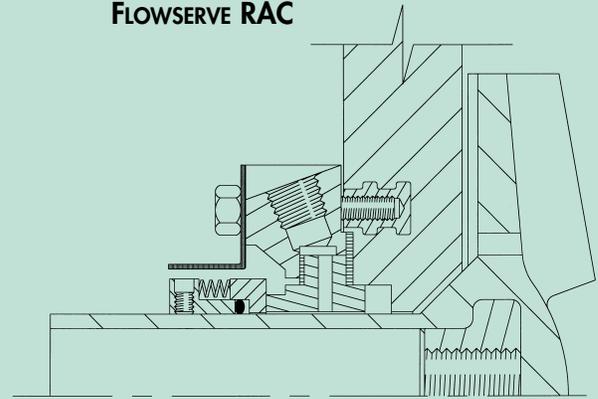
Fybroc Series 1500 pumps are available with a wide variety of mechanical seal arrangements. For corrosive fluid handling, single outside and double inside seals are recommended. The single outside seals have non-metallic wetted parts and all metal components located outside the pump. The double inside mechanical seals have metallic parts that are exposed to buffer fluid only and are designed to limit the process fluid contact to non-metallic components.

The following illustrations outline some commonly used sealing arrangements. See page 8 for seal flush considerations. Additional mechanical seal configurations (for example, cartridge designs) are available as options.

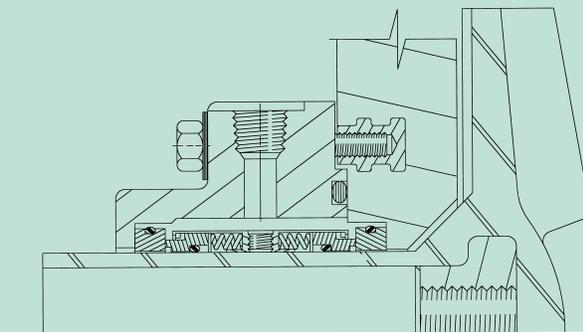
**CRANE 8B2**



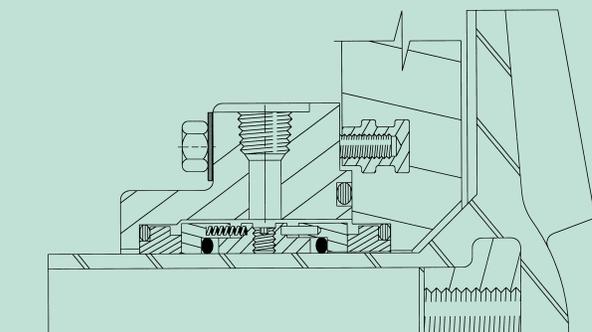
**FLOWERVE RAC**



**CRANE TYPE 8-1T**



**FLOWERVE RXO**



# ENGINEERING INFORMATION – SERIES 1500

PUMP IMPELLER DIAMETER X SUCTION X DISCHARGE		1 x 1.5 x 6	1.5 x 3 x 6	2 x 3 x 6	1 x 1.5 x 8	1.5 x 3 x 8	2 x 3 x 8	3 x 4 x 8	1 x 2 x 10	1.5 x 3 x 10	2 x 3 x 10	3 x 4 x 10	4 x 4 x 10	4 x 6 x 10	2 x 3 x 13	3 x 4 x 13	4 x 6 x 13	6 x 8 x 13	8 x 10 x 15	10 x 12 x 16	
ANSI DESIGNATION		AA	AB	-	AA	A50	A60	A70	A05	A50	A60	A70	-	A80	A30	A40	A80	A90	A120	-	
MAX. SPHERE SIZE		.375 (9.53)	.500 (12.70)		.313 (7.95)	.625 (15.90)	1.000 (25.40)	.188 (4.78)		.375 (9.53)	.625 (15.90)	.750 (19.05)	1.000 (25.40)	.313 (7.95)	.500 (12.70)	1.000 (25.40)	1.125 (28.60)	1.750 (44.45)	1.375 (35.00)		
CASING DATA	IMPELLER CLEARANCE	FRONT	.015 (.38)			.020 (.51)						.025 (.64)									
		BACK	.045 (1.04)			.040 (1.02)						.035 (.89)									
	CASING THICKNESS (MIN)	.500 (12.70)			.750 (19.05)	.625 (15.90)		.75 (19.05)	.625 (15.90)		1.125 (28.60)		.750 (19.05)	1.250 (31.75)		1.375 (35.00)					
VOLUTE		SINGLE					DOUBLE	SINGLE	DOUBLE			SINGLE	DOUBLE								
SHAFT AND BEARING DATA	DIA. AT IMPELLER	.750 (19.05)						1.250 (31.75)						1.500 (38.10)							
	DIA. UNDER SLEEVE	1.125 (28.60)						1.750 (44.45)						2.500 (63.50)							
	DIA. AT BEARINGS IB/OB	1.375/1.375 (35.00/35.00)						1.968/1.771 (50.00/45.00)						2.755/2.755 (70.00/70.00)							
	DIA. BETWEEN BEARINGS	1.625 (41.30)						2.250 (57.15)						3.250 (82.55)							
	BEARING SPAN	3.790 (96.30)						7.090 (180.10)						10.250 (260.35)							
	DIA. AT COUPLING	.875 (22.22)						1.125 (28.60)						2.375 (60.32)							
	BEARING NO. INBOARD	307MZC3						310MZC3						6314ZC3							
	BEARING NO. OUTBOARD	5207AZC3						5309EZC3						5314ZC3							
	MAX. SHAFT HP (KW) PER 100 RPM	1.14 (.85 KW)						4.00 (2.98 KW)						14.80 (11.04 KW)							
	L-10 LIFE	MINIMUM 3 YEARS (26,280 HOURS)																			
	L <sup>3</sup> /D <sup>4</sup> *	152						46						32							
	BEARING FRAME GROUP	I						II						III							
	OIL CAPACITY, PINTS (ℓ)	.375 (.18 ℓ)						2.000 (.95 ℓ)						5.000 (2.37 ℓ)							
BOX DATA	SLEEVE (O.D.)	1.375 (35.00)						2.125 (54.00)						2.875 (73.00)							
	STUFFING BOX BORE	2.000 (50.80)						2.875 (73.02)						3.750 (95.25)							
	MAX. DEPTH OF BOX	2.750 (69.85)						3.250 (82.55)						3.500 (88.90)							
	PACKING SIZE	5/16 x 5/16 (7.94 x 7.94)						3/8 x 3/8 (9.52 x 9.52)						7/16 x 7/16 (11.11 x 11.11)							
	DISTANCE TO FIRST OBSTRUCTION	3.140 (79.76)						3.980 (101.10)						4.870 (123.70)							

DIMENSIONS SHOWN ARE IN INCHES AND (MILLIMETERS)

L<sup>3</sup>/D<sup>4</sup>\* – THE LOWER THE NUMBER, THE STIFFER THE SHAFT (AND THEREFORE LESS SHAFT DEFLECTION AND IMPROVED MECHANICAL SEAL LIFE).