IronMountain

BY

ATLAS

SEVERE DUTY SLURRY PUMPS

AMERICAN QUALITY ASSESSORS
AQA
INTERNATIONAL

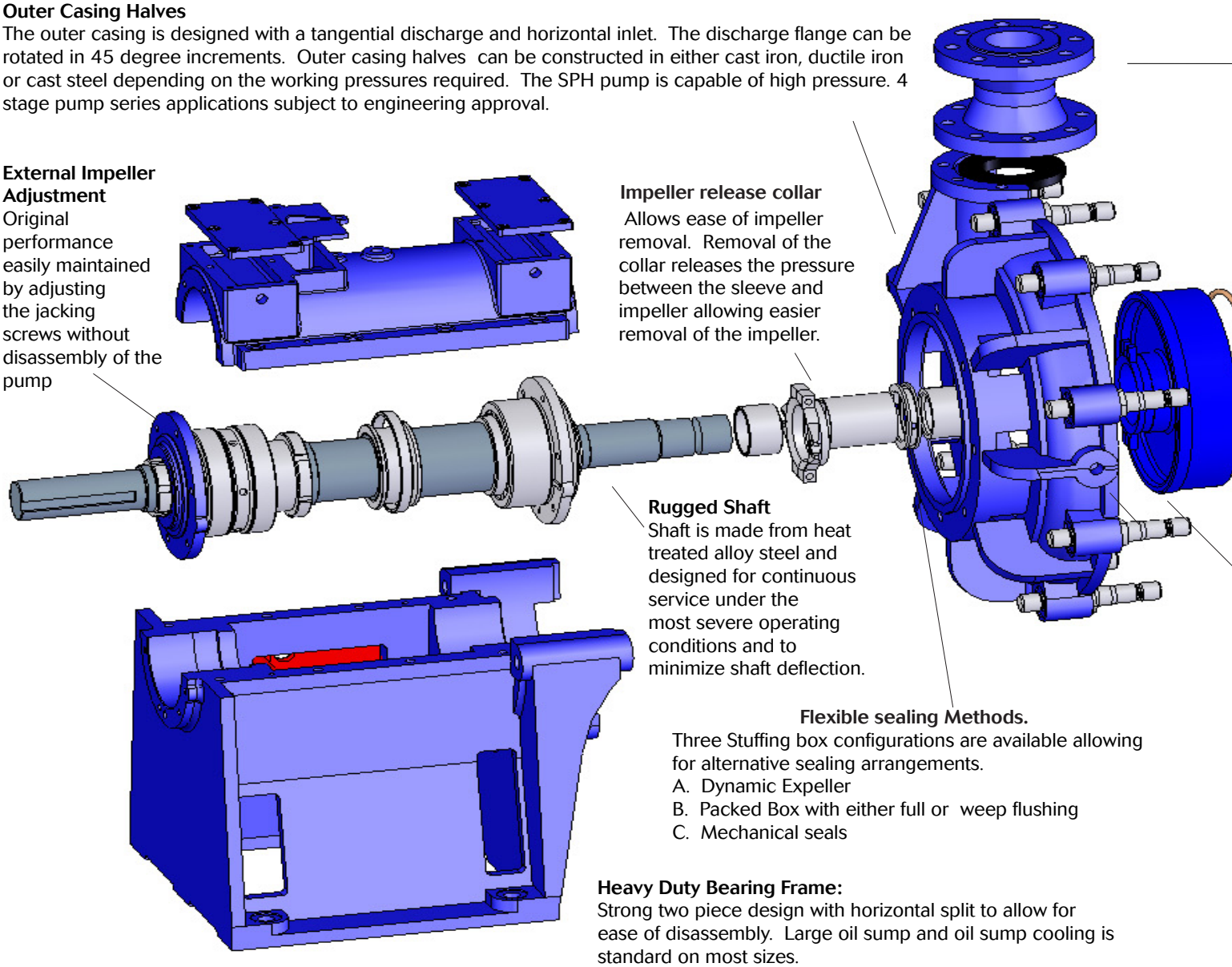
ISO9000 Certified

Outstanding Features and Design

The pump is single stage, single suction, frame mounted, overhung, **double casing design horizontal centrifugal pump.**

Outer Casing Halves
The outer casing is designed with a tangential discharge and horizontal inlet. The discharge flange can be rotated in 45 degree increments. Outer casing halves can be constructed in either cast iron, ductile iron or cast steel depending on the working pressures required. The SPH pump is capable of high pressure. 4 stage pump series applications subject to engineering approval.

External Impeller Adjustment
Original performance easily maintained by adjusting the jacking screws without disassembly of the pump



Impeller release collar
Allows ease of impeller removal. Removal of the collar releases the pressure between the sleeve and impeller allowing easier removal of the impeller.

Rugged Shaft
Shaft is made from heat treated alloy steel and designed for continuous service under the most severe operating conditions and to minimize shaft deflection.

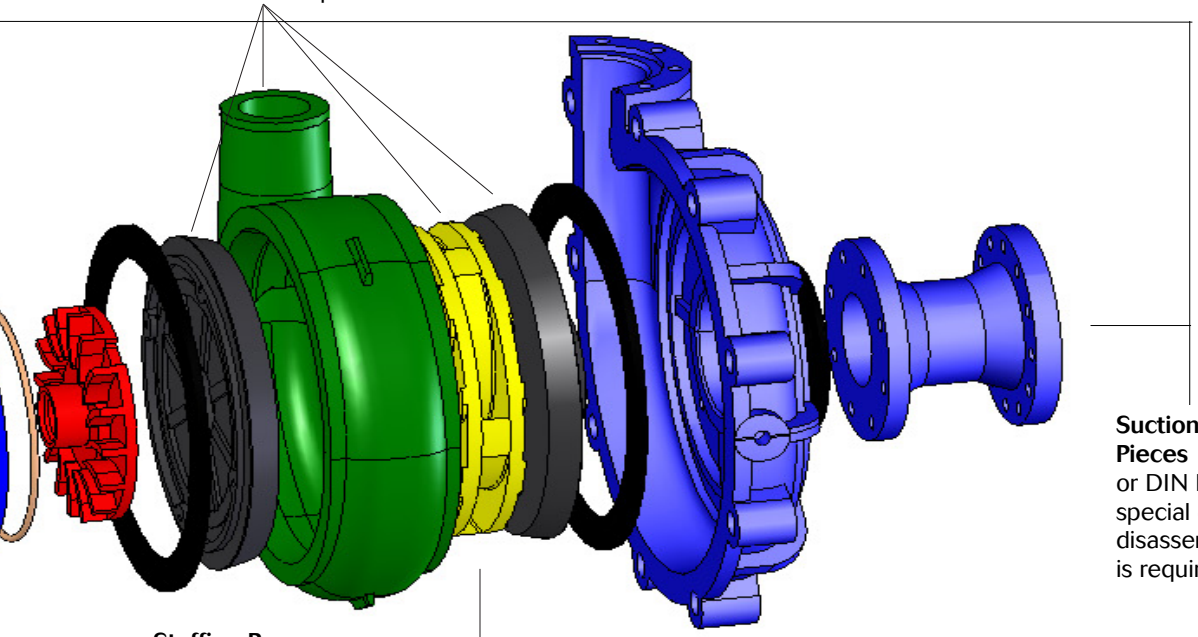
Flexible sealing Methods.
Three Stuffing box configurations are available allowing for alternative sealing arrangements.
A. Dynamic Expeller
B. Packed Box with either full or weep flushing
C. Mechanical seals

Heavy Duty Bearing Frame:
Strong two piece design with horizontal split to allow for ease of disassembly. Large oil sump and oil sump cooling is standard on most sizes.

Part	SP Materials of Construction		
Outer Casings	Cast Iron	Ductile Iron	Cast Steel
Impeller	28% CR Iron	36% CR Alloy for Corrosive Applications	15/3 Alloy
Volute Liner			
Wear Plates			
Stuffing Box	Cast Iron	28% CR Iron	35% CR Alloy
Expeller			
Sleeve	420 SS at 55 Rc		
Shaft	Carbon Steel		
Bearing Housing	Cast Iron		
Spool Pieces	Cast Iron	Ductile Iron	
Seal Rings	Elastomer		

Mining & Mineral Processing • Power Plants • Cyclone Feed • Oil & Gas
Sand & Gravel • Potato & Sugar Beet

Volute, Impeller & Wear Plates
The volute and wear plates are available from a range of hard alloy materials to maximize wear and corrosion resistance. Parts are thick in section to provide for wear.



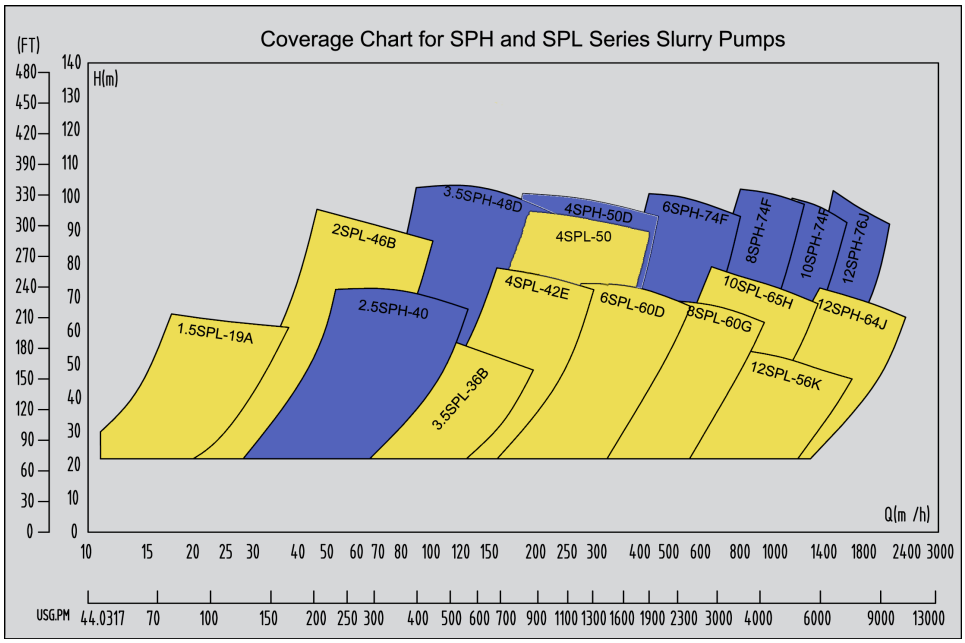
Suction and Discharge Spool Pieces Are compatable with ANSI or DIN Flanges. They do not require special drilled pipe flanges and make disassembly easier when maintenance is required

Stuffing Box
Three stuffing box configurations are available for packed box, expeller and mechanical seal applications. A hardened shaft sleeve is standard to protect shaft and bearings.

Impeller
The SPL and SPH pumps have large diameter impellers which allow higher heads at lower operating speeds. The vanes have a twist which improves efficiency over the straight vane design. Extra thickness at the tips is provided to extend wear life.

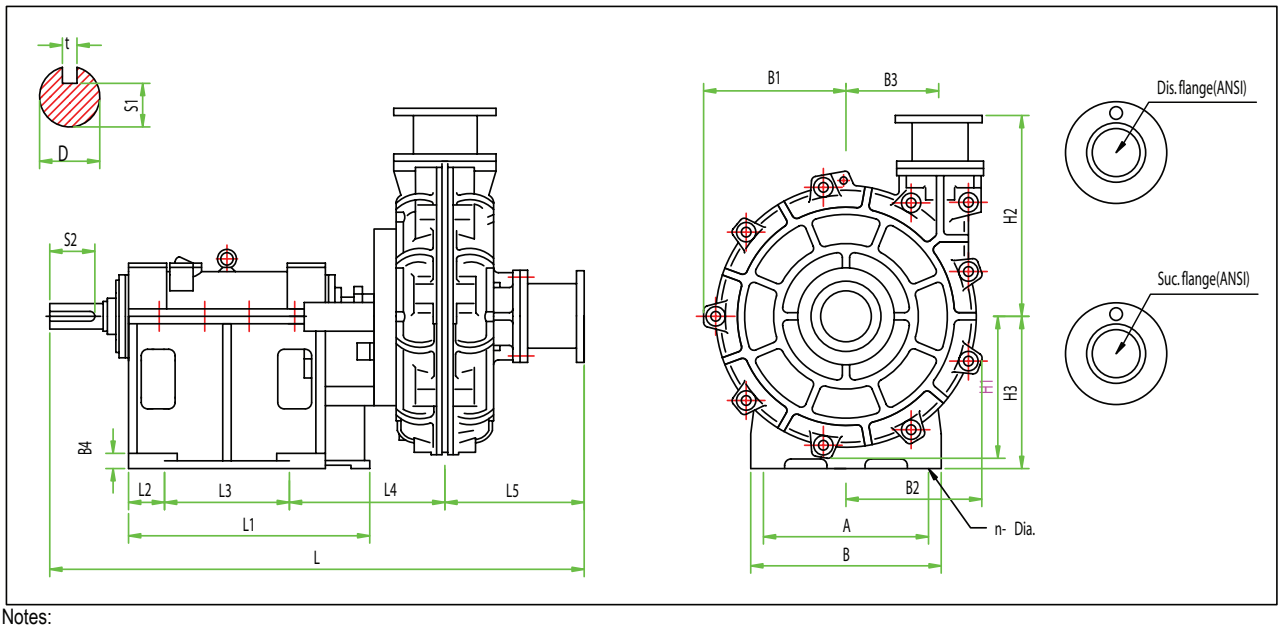
IronMountain pumps are designed for severe slurry pumping:

- Capacities through 9000 GPM (2000 m3/hr)
- Heads to 350 feet (100M and 950 BHP)
- Temperatures to 240° (165°C)



Hydraulic Coverage Curve for 60 Hz

BARE PUMP DIMENSIONAL DRAWING



Notes:

1. Do not use for construction unless certified.
2. Rotation is CW when viewed from shaft end.
3. Do not Scale. Additional dimensions will be furnished on request.
4. All dimensions are in inches and millimeters.
5. Suction and Discharge pipes must be independently supported.

Model	A	B	B1	B2	B3	B4	H1	H2	H3	L	L1	L2	L3	L4	L5	No. /Dia	S1	S2	D	T	Suct	Disc
1.5SPL-19A (in)	15.75	17.72	6.49	6.87	4.40	0.78	6.49	10.24	6.69	23.46	12.32	1.65	8.19	5.87	3.90	4-0.55	0.83	1.97	0.98	0.31	2	1.5
1.5SPL-19A(mm)	400.05	450.09	164.85	174.50	111.76	19.81	164.85	260.10	169.93	595.88	312.93	41.91	208.03	149.10	99.06	4-14	21.08	50.04	24.89	7.87		
2SPL-46B (in)	17.72	20.08	12.79	14.56	10.16	0.98	12.80	19.80	14.17	46.10	21.06	1.97	15.75	9.41	11.61	4-0.94	1.93	4.49	2.17	0.63	3.5	2
2SPL-46B (mm)	450.09	510.03	324.87	369.82	258.06	24.89	325.12	502.92	359.92	1170.94	534.92	50.04	400.05	239.01	294.89	4-24	49.02	114.05	55.12	16.00		
3.5SPL-36D (in)	26.77	29.92	13.77	13.77	8.46	1.97	13.78	18.43	14.17	46.51	22.91	1.97	15.75	9.02	11.14	4-1.18	1.93	4.49	2.17	0.63	5	3.5
3.5SPL-36D (mm)	679.96	759.97	349.76	349.76	214.88	50.04	350.01	468.12	359.92	1181.35	581.91	50.04	400.05	229.11	282.96	4-30	49.02	114.05	55.12	16.00		
4SPL-42F(in)	20.08	17.72	13.77	14.96	9.84	0.98	12.80	19.21	14.17	46.42	19.69	1.97	15.75	9.45	11.61	4-0.94	1.93	4.49	2.17	0.63	6	4
4SPL-42F(mm)	510.03	450.09	349.76	379.98	249.94	24.89	325.12	487.93	359.92	1179.07	500.13	50.04	400.05	240.03	294.89	4-24	49.02	114.05	55.12	16.00		
6SPL-60G (in)	35.43	39.37	20.07	21.14	14.57	2.17	19.69	25.91	25.98	61.85	32.44	2.28	20.08	14.17	13.62	4-1.57	2.80	6.50	3.15	0.87	8	6
6SPL-60G(mm)	899.92	1000.00	509.78	536.96	370.08	55.12	500.13	658.11	659.89	1570.99	823.98	57.91	510.03	359.92	345.95	4-40	71.12	165.10	80.01	22.10		
8SPL-60G (in)	35.43	39.37	20.07	20.98	14.96	2.17	19.61	25.91	25.98	62.72	32.44	2.28	20.08	14.61	14.06	4-1.57	2.80	6.50	3.15	0.87	10	8
8SPL-60G (mm)	899.92	1000.00	509.78	532.89	379.98	55.12	498.09	658.11	659.89	1593.09	823.98	57.91	510.03	371.09	357.12	4-40	71.12	165.10	80.01	22.10		
10SPL-65J (in)	43.70	47.24	24.02	25.59	16.14	2.56	23.62	29.45	31.89	75.31	39.37	2.17	24.80	15.43	17.20	4-1.57	3.58	7.28	3.94	1.10	12	10
10SPL-65J (mm)	1109.98	1199.90	610.11	649.99	409.96	65.02	599.95	748.03	810.01	1912.87	1000.00	55.12	629.92	391.92	436.88	4-40	90.93	184.91	100.08	27.94		
12SPL-56L(in)	43.70	47.24	20.86	19.96	15.75	2.56	20.87	29.45	31.89	76.22	39.37	2.56	24.80	16.10	17.48	4-1.57	3.58	7.28	3.94	1.10	14	12
12SPL-56L(mm)	1109.98	1199.90	529.84	506.98	400.05	65.02	530.10	748.03	810.01	1935.99	1000.00	65.02	629.92	408.94	443.99	4-40	90.93	184.91	100.08	27.94		
12SPL-65M(in)	30.71	33.86	24.41	26.38	18.50	2.36	29.53	29.84	24.80	72.02	34.25	2.56	29.13	14.76	17.68	4-2.36	3.62	6.30	3.94	1.10	14	12
12SPL-65M(mm)	780.03	860.04	620.01	670.05	469.90	59.94	750.06	757.94	629.92	1829.31	869.95	65.02	739.90	374.90	449.07	4-60	91.95	160.02	100.08	27.94		
2.5SPH-39C (in)	17.01	19.37	13.88	14.84	8.66	1.77	14.19	18.70	16.34	54.31	22.83	1.77	13.39	15.77	12.99	4-0.87	2.28	5.91	2.56	0.71	3.5	2.5
2.5SPH-39C (mm)	432.05	492.00	352.55	376.94	219.96	44.96	360.43	474.98	415.04	1379.47	579.88	44.96	340.11	400.56	329.95	4-35	57.91	150.11	65.02	18.03		
3.5SPH-48E (in)	22.05	25.04	14.17	17.52	10.98	1.97	15.08	22.05	20.47	62.91	28.54	2.83	17.32	17.76	11.65	4-1.14	2.80	7.99	3.15	0.87	4	3.5
3.5SPH-48E (mm)	560.07	636.02	359.92	445.01	278.89	50.04	383.03	560.07	519.94	1597.91	724.92	71.88	439.93	451.10	295.91	4-29	71.12	202.95	80.01	22.10		
4SPH-50E(in)	22.05	25.04	15.55	18.39	11.42	1.97	15.51	23.50	20.47	67.64	28.54	2.83	17.32	18.39	15.83	4-1.14	2.80	7.99	3.15	0.87	6	4
4SPH-50E (mm)	560.07	636.02	394.97	467.11	290.07	50.04	393.95	596.90	519.94	1718.06	724.92	71.88	439.93	467.11	402.08	4-29	71.12	202.95	80.01	22.10		
6SPH-74H (in)	22.92	33.07	24.37	26.93	17.83	2.36	25.79	32.28	25.59	78.98	39.88	4.65	22.05	24.21	15.28	4-1.38	4.29	7.87	4.72	1.26	8	6
6SPH-74H (mm)	582.17	839.98	619.00	684.02	452.88	59.94	655.07	819.91	649.99	2006.09	1012.95	118.11	560.07	614.93	388.11	4-35	108.97	199.90	119.89	32.00		
8SPH-74H (in)	22.92	33.07	26.57	28.93	18.11	2.36	27.36	34.65	25.59	87.13	39.88	4.65	22.05	24.72	22.80	4-1.38	4.29	7.87	4.72	1.26	10	8
8SPH-74H (mm)	582.17	839.98	674.88	734.82	459.99	59.94	694.94	880.11	649.99	2213.10	1012.95	118.11	560.07	627.89	579.12	4-35	108.97	199.90	119.89	32.00		
10SPH-74K (in)	30.71	37.40	25.39	27.95	18.11	2.36	26.78	38.35	25.59	85.04	38.50	5.04	21.65	24.72	19.69	4-1.57	4.29	7.87	4.72	1.26	12	10
10SPH-74K (mm)	780.03	949.96	644.91	709.93	459.99	59.94	680.21	974.09	649.99	2160.02	977.90	128.02	549.91	627.89	500.13	4-40	108.97	199.90	119.89	32.00		
12SPH-76K (in)	30.71	37.40	25.55	30.15	18.70	2.36	26.61	34.76	25.59	89.84	38.50	5.04	21.65	26.77	24.02	4-1.57	4.29	7.87	4.72	1.26	14	12
12SPH-76K (mm)	780.03	949.96	648.97	765.81	474.98	59.94	675.89	882.90	649.99	2281.94	977.90	128.02	549.91	679.96	610.11	4-40	108.97	199.90	119.89	32.00		

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