

# S Series

**Heavy Duty Slurry Pump**  
**Elastomer and Hard Iron Liners**

# APPLICATIONS

***A diverse range of applications benefit from the rugged wear-tolerant design for the Schurco Slurry® S Series pumps. The S Series pumps run slower and last longer. Watch total cost of ownership drop as these pumps reduce costs and downtime with readily available stock the world over.***

**Mining & Mineral Processing** applications benefit from the slow running speeds of the S Series pumps and their easily replaceable elastomer or white iron liners and impellers. Especially suited for rugged mill discharge with coarse or fine particles.



**Sand & Gravel** operations are familiar with the heavy toll that maintenance on slurry pumps can take on a budget. Schurco Slurry pumps are designed for ease of maintenance, minimizing downtime when standby pumps are not available.

**Chemical Processes** often require corrosion resistance in addition to erosion resistance. With a wide variety of white iron metallurgies and multiple natural and synthetic elastomer liner options available, the S Series offers the best pump solution for any chemical process.



## **Widely Fielded Applications**

- Coal Washing
- Mill Discharge, Concentrator, Tailings
- Flue Gas Desulphurization (FGD)
- Sugar Processing
- Steel Mills
- Oil & Gas (Upstream)
- Industrial Applications

**Schurco Slurry Pumps are designed specifically for abrasive pumping of any kind**

# TECHNICAL SPECIFICATION

The S Series are all-purpose workhorse pumps which provide ideal duty points from low flows of 10 gallons per minute (GPM) (2.3 cubic meters per hour (m<sup>3</sup>/hr)) through excess of 18,000 GPM (4,090 m<sup>3</sup>/hr). Designed to be able to reach heads greater than 250 feet (76 m) in a single pump, these pumps strike the ideal balance between wear-rates and efficiency.

With heavy-duty wear components cast in the hardest chrome irons on the market today or lined with a variety of rubber or other elastomeric materials, the S Series pump achieves its goal in providing long-lasting life with ease of use and maintenance.

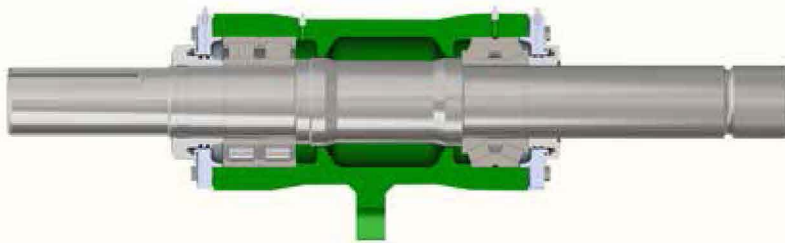
S Series pumps are designed for slurries through Class IV with appropriate material selection.

## S SERIES PUMPS

Base Model	Bearing Assembly	Nominal Suction x Discharge (inches, [mm])	Nominal Impeller* Diameter (inches, [mm])	Solid Sphere Passing, Ø* (inches, [mm])	Impeller* Materials	Liner Materials
1.5 S 25	B	1.5x1 [40x25]	5.98 [152]	0.55 [14]	Chrome Iron(s) and Elastomer(s) Available  NOTE: Open face, large particle and specialized impellers available upon request	Chrome Iron(s) and Elastomer(s) Available
2 S 40	B	2x1.5 [50x40]	7.24 [184]	0.75 [19]		
3 S 50	C	3x2 [75x50]	8.43 [214]	0.98 [25]		
4 S 75	C, D	4x3 [100x75]	9.65 [245]	1.42 [36]		
6 S 100	D, E	6x4 [150x100]	14.37 [365]	2.01 [51]		
8 S 150	E, F	8x6 [200x150]	20.08 [510]	2.48 [63]		
10 S 200	F, S	10x8 [250x200]	27.01 [686]	2.99 [76]		
12 S 250	S, G	12x10 [300x250]	30.00 [762]	3.39 [86]		
14 S 300	S, G, T	14x12 [350x300]	37.99 [965]	3.54 [90]		
16 S 350	G, T	16x14 [400x350]	42.01 [1067]	5.31 [135]		
20 S 450	T	20x18 [500x450]	53.94 [1370]	5.12 [130]	Chrome Iron	

\*Standard impeller (typically five vane, chrome iron, closed face)

## BEARING ASSEMBLY RATINGS



Type	Standard (HP [kW])	High Capacity (HP [kW])
B	20 [15]	N/A
C	40 [30]	74 [55]
D	80 [60]	148 [110]
E	161 [120]	302 [225]
R	402 [300]	N/A
F	349 [260]	570 [425]
S	751 [560]	N/A
G	805 [600]	1207 [900]
T	1609 [1200]	N/A

- Grease-lubricated cartridge bearing assembly
- Extended bearing life with oversized shaft diameters and bearings
- Highest quality name brand tapered-roller and roller bearings
- Safe and simple single-point impeller adjustment to maintain peak efficiency

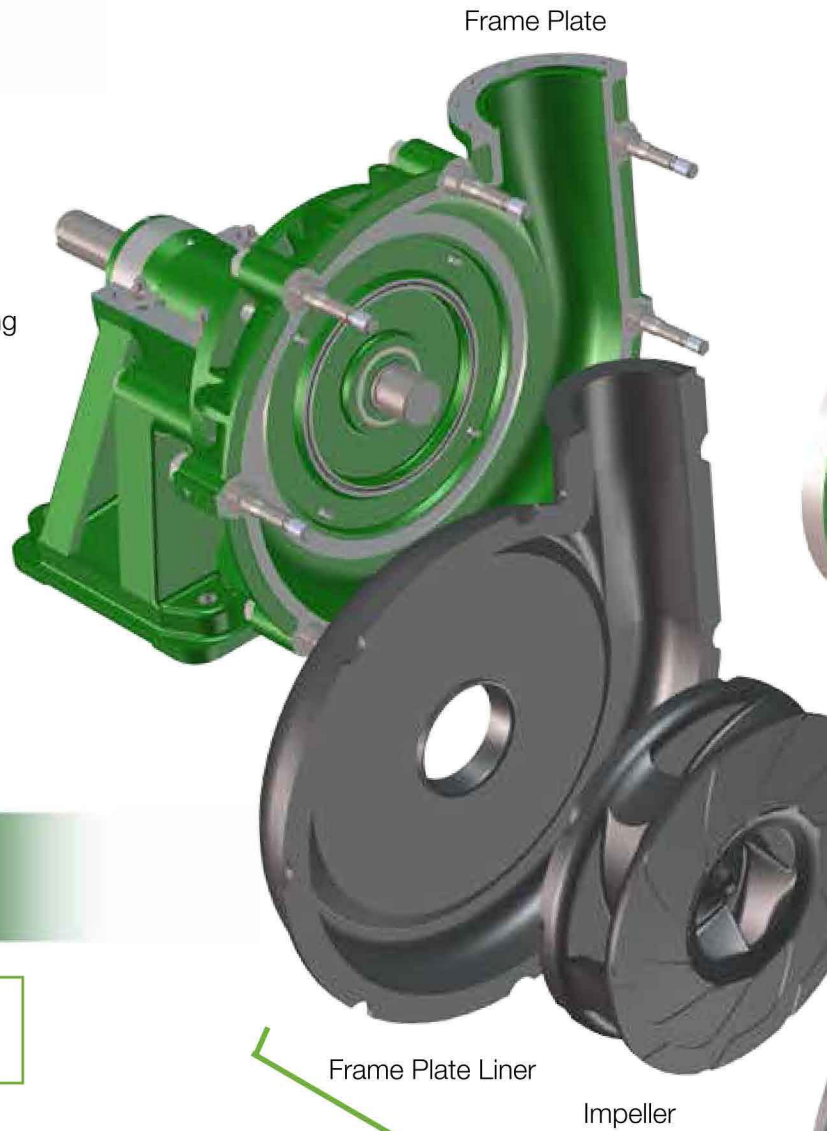
# S SERIES OPTIONS

## SHAFT

Oversized high-strength alloy steel shaft limits deflection during operation

## BASE

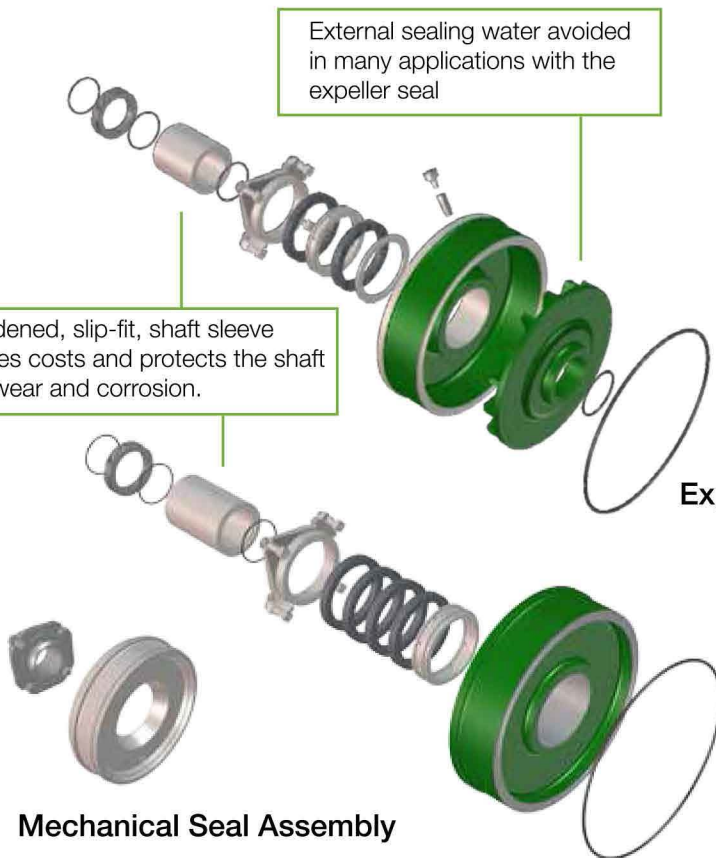
Robust cast iron base cradles bearing cartridge and allows simple impeller adjustment and pump wet-end support with minimal number of through bolts.



# STANDARD SEAL OPTIONS

External sealing water avoided in many applications with the expeller seal

A hardened, slip-fit, shaft sleeve reduces costs and protects the shaft from wear and corrosion.

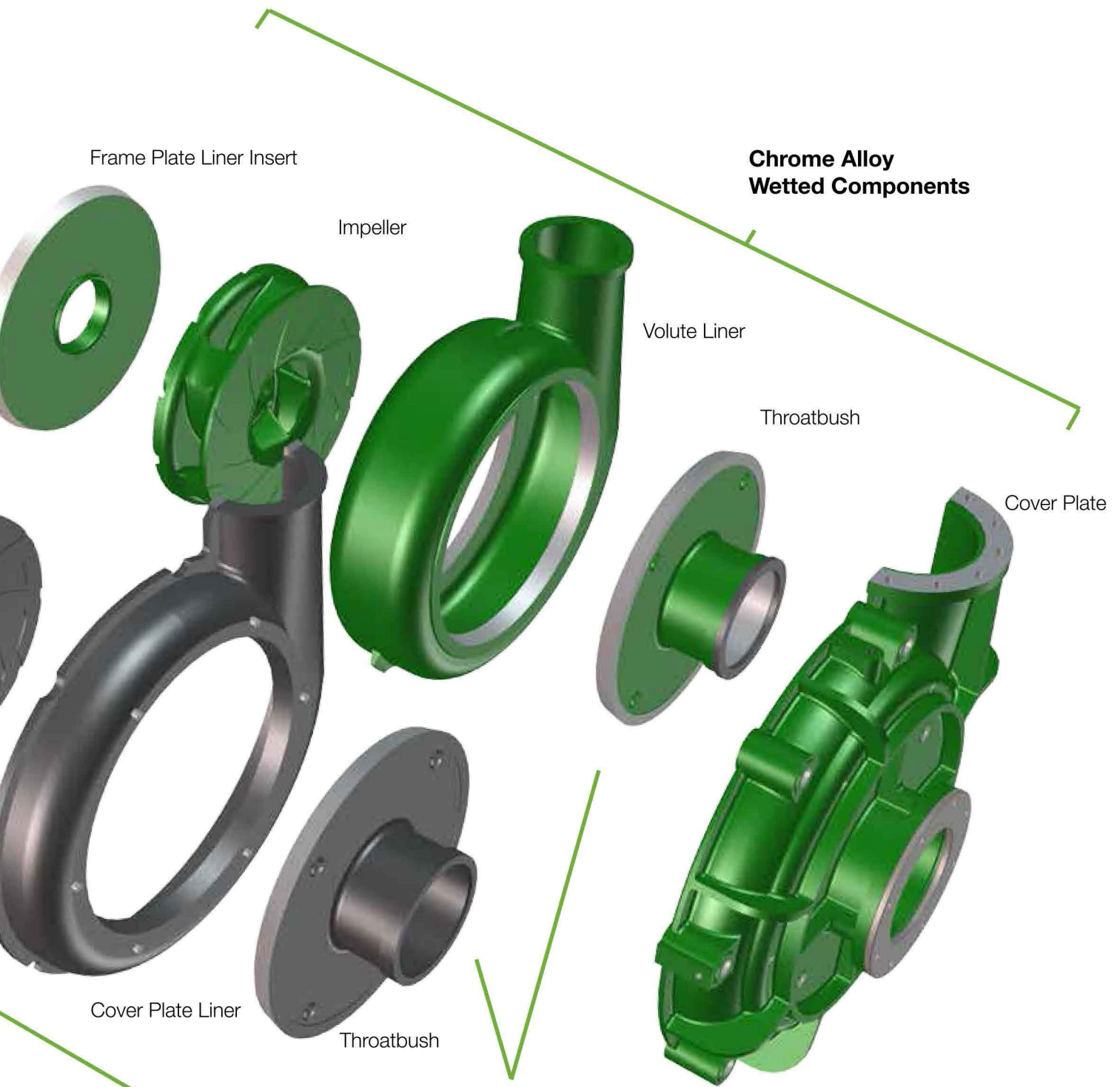


Expeller Seal Assembly

Gland Seal Assembly

Many other application specific seals available – Talk to a Schurco Application Engineer to find out more!

**Elastomeric Wetted Components**



**Chrome Alloy  
Wetted Components**

**EASE OF MAINTENANCE**

Tapered mating faces enable accurate alignment of liners

**OUTER CASING**

Heavy-duty cast iron cover and frame plates enclose the wet-end of the pump enabling high operating pressures.

**MATERIAL SELECTION**

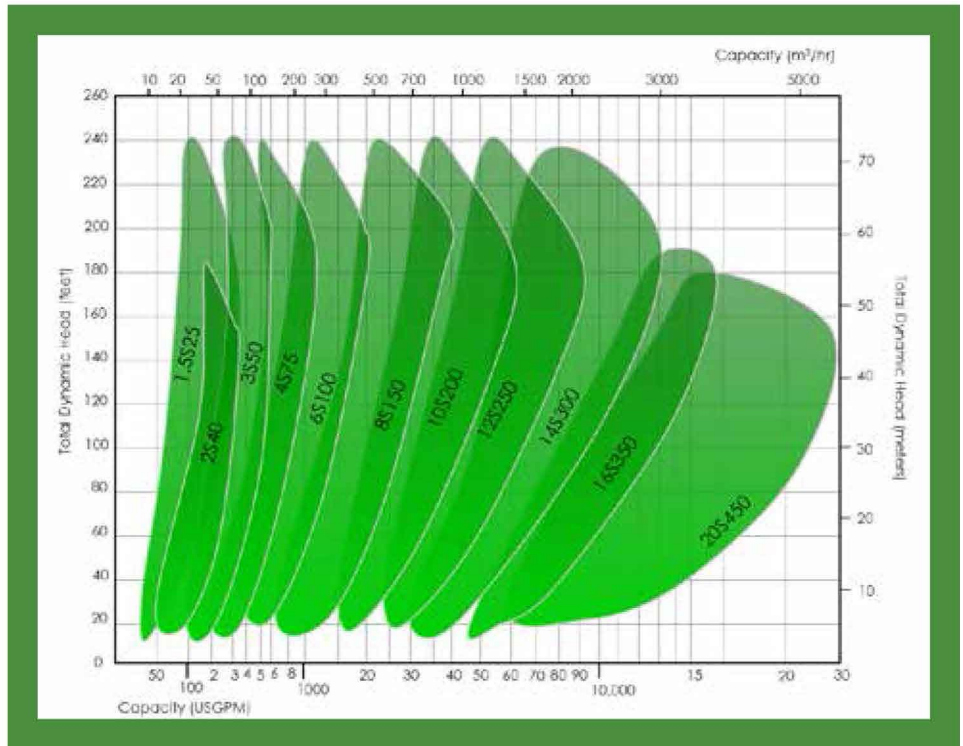
Schurco Application Engineers can assist in specifying from a wide range of available chrome iron alloys and molded elastomers to optimize the wear characteristics of each component.

# BASIC SELECTION

## S Series Hydraulic Coverage

All models available with elastomer and chrome alloy impellers

**Maximum Working Pressure:**  
 Elastomer – 170 psi (1172 kPa)  
 Chrome Iron – 300 psi (2068 kPa)



## Material Selection

	Liners	Impellers	Expeller	Stuffing Box Expeller Ring	Shaft Sleeve	Seals	Casing	Base
<b>Standard</b>	Chrome Alloy* Natural Rubber	Chrome Alloy* Natural Rubber	Chrome Alloy*	Chrome Alloy*	420C SS	Rubber Nitrile	Ductile Iron	Ductile Iron
<b>Options</b>	Other Alloys  Neoprene Butyl EPDM Hypalon Nitrile	Other Alloys  Neoprene Butyl EPDM Hypalon Nitrile	Ductile Iron	Natural Rubber Ductile Iron Ferralium 316 SS	304 SS/316 SS NCB-316 SS Hastelloy C Hard Coatings			

\*Standard Chrome Alloy: ASTM A532 Class III Type A – 27% Cr, 650BHN; Alternatives available for highly corrosive services.

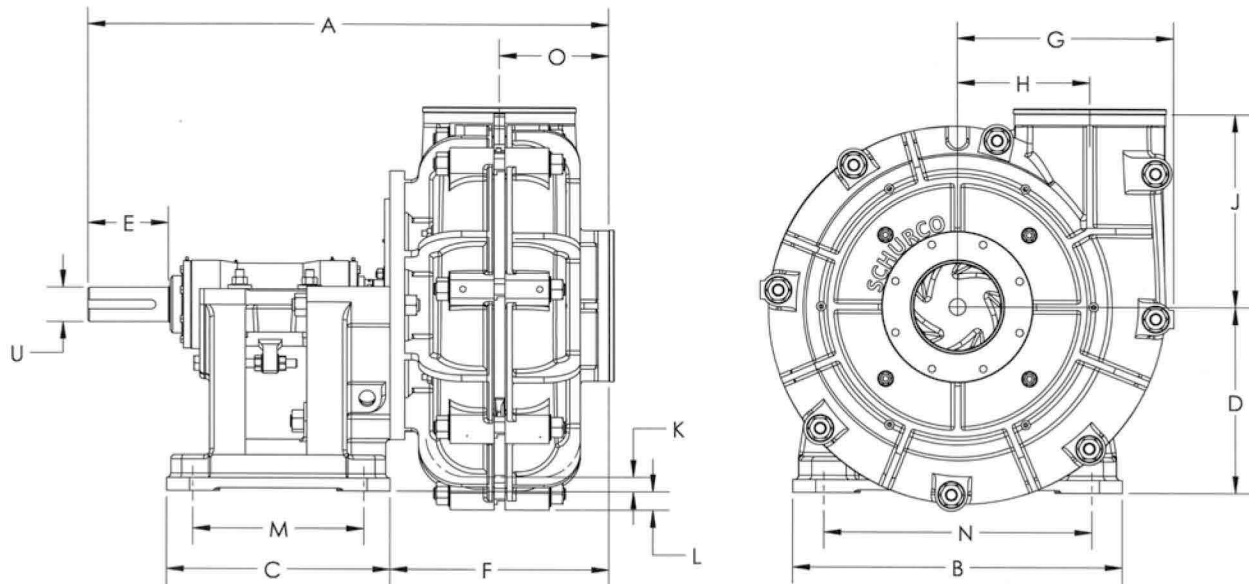


LEFT: Schurco Hydraulic and Maintenance Training Seminar (Schurco 6x4 S Series natural rubber pump).

RIGHT: Schurco 8x6 S Series pumps at an industrial sand producer in California



# OUTLINE DIMENSIONS



Pump Model	A	B	C	D	U [mm]	Keyway [mm]	E	F	G	H	J	K	L	M	N	O	Weight (lb)	
																	Metal	Rubber
1.5 SB 25	22.95	11.61	9.76	7.76	28	8x7	3.11	8.11	7.13	3.86	6.73	1.81		5.63	10.00	4.17	195	170
2 SB 40	23.31	11.61	9.76	7.76	28	8x7	3.11	8.54	7.99	4.49	7.24	1.31		5.63	10.00	4.49	345	260
3 SC 50	30.24	15.98	12.24	10.00	42	12x8	4.76	11.02	9.37	5.43	8.27	2.81		6.89	14.02	5.94	435	340
4 SC 75	33.19	15.98	12.24	10.00	42	12x8	4.76	13.90	11.50	5.87	10.31	0.93		6.89	14.02	7.36	550	500
4 SD 75	37.13	19.37	14.33	12.99	65	18x11	6.46	13.90	11.50	5.87	10.31	3.94		8.39	17.01	7.36	700	640
6 SD 100	40.20	19.37	14.33	12.99	65	18x11	6.46	16.69	15.98	9.02	13.31	0.43		8.39	17.01	8.62	1475	1000
6 SE 100	46.38	24.49	17.64	17.99	80	22x14	8.74	17.05	15.98	9.02	13.31	5.43		10.12	21.50	8.62	1950	1400
8 SE 150	51.26	24.49	17.64	17.99	80	22x14	8.74	21.93	21.69	12.52	18.11		2.44	10.12	21.50	11.50	3300	2165
8 SF 150	59.33	33.74	24.96	24.02	100	28x16	10.98	21.22	21.69	12.52	18.11	3.54		13.74	30.00	11.50	4000	3065
10 SF 200	64.80	39.02	27.76	24.02	100	28x16	10.98	26.89	26.50	16.50	25.00		0.47	21.42	30.00	13.11	7040	5270
10 SS 200	68.82	45.28	30.71	25.59	120	32x18	11.02	27.24	26.50	16.50	25.00	1.06		24.41	35.43	13.11	8250	6480
12 SF 250	67.76	39.02	27.76	24.02	100	28x16	10.98	29.65	29.72	18.27	26.50		4.09	25.20	29.92	15.00	9250	7030
12 SS 250	71.50	45.28	30.71	25.59	120	32x18	11.02	30.00	29.72	18.27	26.50		2.56	24.41	35.43	15.00	10250	8150
14 SF 300	69.76	39.02	27.76	24.02	100	28x16	10.98	31.61	36.89	24.76	32.76		10.35	21.42	30.00	15.98	12890	9300
14 SS 300	73.74	45.28	30.71	25.59	120	32x18	11.02	31.97	36.89	24.76	32.76		8.82	24.41	35.43	15.98	14100	10300
16 SG 350	86.26	47.52	34.49	33.50	140	36x20	14.49	40.00	37.24	33.86	35.00		3.74	29.49	33.50	17.76	22000	17000
16 ST 350	91.34	57.48	41.34	35.43	150	36x20	13.76	37.52	41.26	25.98	35.00		3.31	33.86	47.24	17.76	22000	17000
20 ST 450	97.13	57.48	41.34	35.43	150	36x20	13.78	43.31	55.67	37.01	48.43		16.42	33.86	47.24	22.83	38300	28100

All dimensions in inches except keyway and shaft diameter "U" which are in [mm]

Dimensions shown in the table are only for reference and evaluation purposes.  
Please refer only to certified drawings for construction and arrangement purposes.



## **SCHURCO SLURRY® PUMPS**

Centrifugal Slurry Pumps

9410 Florida Mining Blvd E  
Jacksonville, Florida USA 32257  
Tel. +1(904)356-6840 | Fax +1(904)356-4401  
[sales@schurcoslurry.com](mailto:sales@schurcoslurry.com)

For local sales and service call: