



Denver SRL Pumps



DENVER SRL[®] Pump

A comprehensive line of soft, rubber-lined pumps designed to fit a wide range of pumping applications from corrosive to abrasive slurries



SRL silica sand installation

Design Advantages

Capacity

- 20-18,000 GPM
- Heads up to 180 feet for continuous service
- Slurries up to 70% solids

Impellers & Liners

- Replaceable, two-piece liners
- Constructed of natural rubber, neoprene, polyurethane, hypalon or other elastomeric material bonded to metal inserts
- Heavy-duty metal inserts maintain proper hydraulic shape to prevent collapsing under suction lift or surging conditions
- Can be externally adjusted for proper running clearances without opening pump

Gland Seals

- *Ful-Flush* packing gland for heavy abrasive slurries
- *Lo-Flo* packing gland for light slurries where the lack of seal water requires small quantities of seal water
- *Mechanical* seal where zero leakage of pump fluid is required
- Special *Grease-Lubricated* gland seals are available for special applications

Slide Maintenance Base (optional)

- Pump can be opened for inspection or parts replacement in minutes without disturbing discharge or suction piping, overhead motor, electrical connections or drive guard

Casing

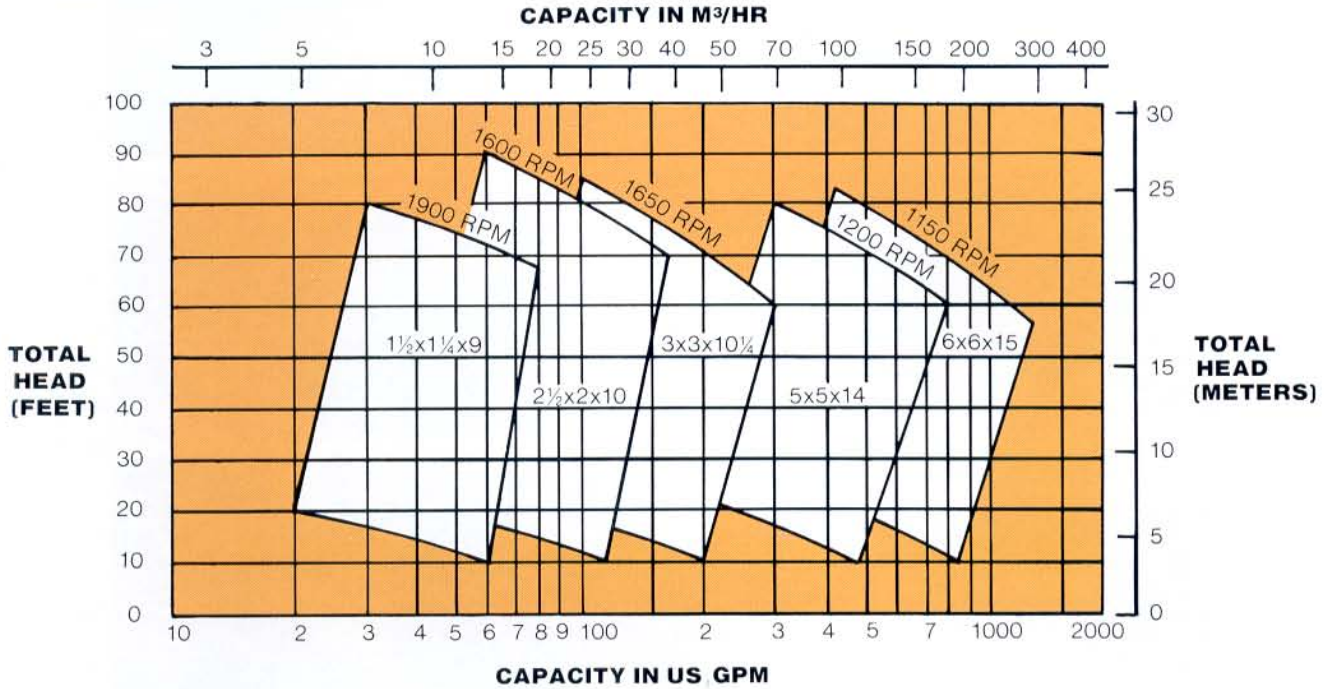
- Vertical, split-cast iron case is standard - HD ductile is available for multi-stage or heavy duty applications
- Easily separated for removal and replacement of liners

Construction Specifications

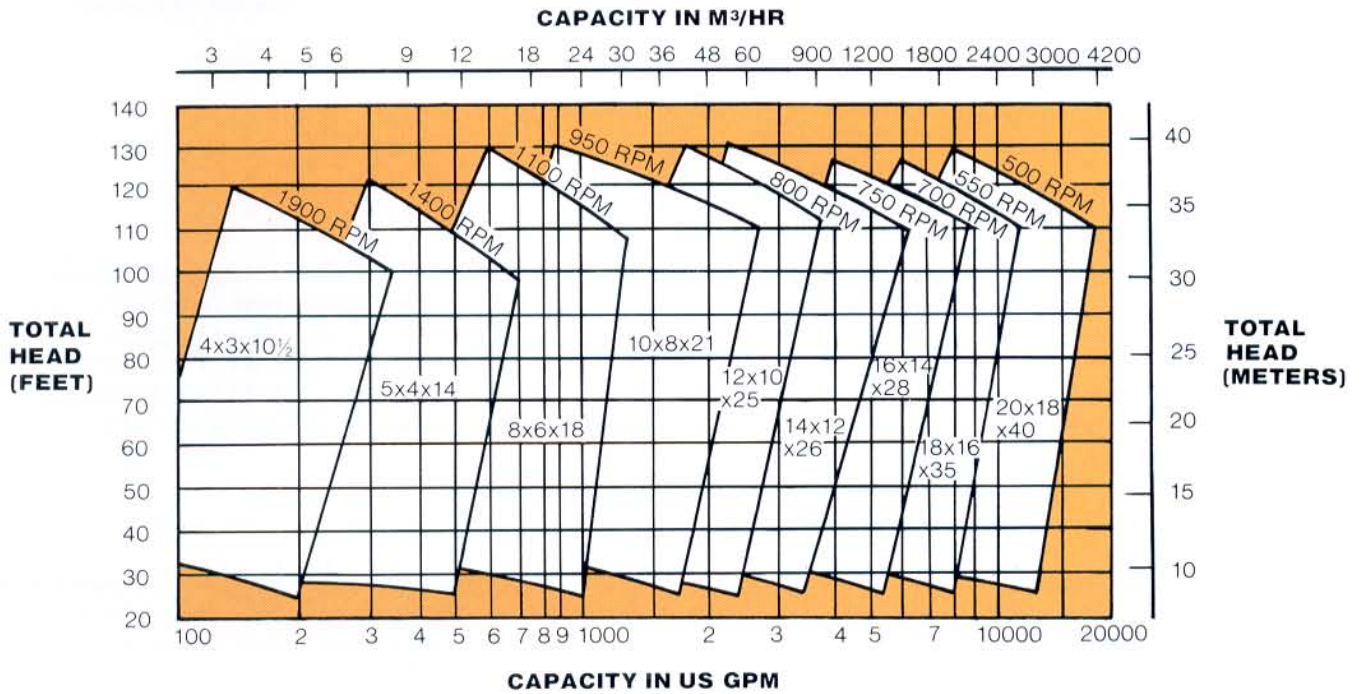
Part	Standard Construction	Optional Material
Impeller	Natural rubber - ASTM D2000	Neoprene, butyl or polyurethane, hard metal alloy, white cast iron
Casing Liners	Natural rubber on fabricated steel skeleton - ASTM D200	Neoprene, butyl or polyurethane
Casing	Ductile iron - ASTM 536	Extra high pressure cast steel ASTM A487 or ductile iron ASTM A536 (in selected sizes)
Shaft	Alloy steel AISI 4140	
Shaft Sleeve	Steel ASTM A5	316 SS ASTM A298 Hast C ASTM A494, Alloy 20 ASTM A351
Shaft Seal	Ful-Flush or Lo-Flo arrangement	Mechanical seal
Bearings -		
Frame 1 thru 4	Anti-friction angular contact ball	
Frame 5 thru 7	Anti-friction spherical with separate thrust	
Cashing Pedestal		
Frame 1 thru 5	Cast iron - ASTM A48	
Frame 6 and 7	Fabricated steel - ASTM A283	
Lubrication	Oil SAE 30	

SRL Pump Performance Range

SRL PUMP COVERAGE CHART* 20 US GPM TO 1300 US GPM



SRL TYPE C PUMP COVERAGE CHART* 100 US GPM TO 1000 US GPM



*NOTE: Use these charts as a guide only. Refer to individual performance curves for selection. SRL is an open impeller; SRL Type C is an enclosed impeller.

Built-in Benefits

Liner push-out bolts; allows for easy removal of liners.

Replaceable molded rubber side plates and side liners; bonded to metal backing plates which prevent collapse under low suction pressure conditions.

Replaceable shaft sleeve; protects shaft from wear and is sealed with O-rings.

Shaft bearing assembly with oversize heavy duty anti-friction bearings (in oil-bath); totally enclosed for extended life in severe service.

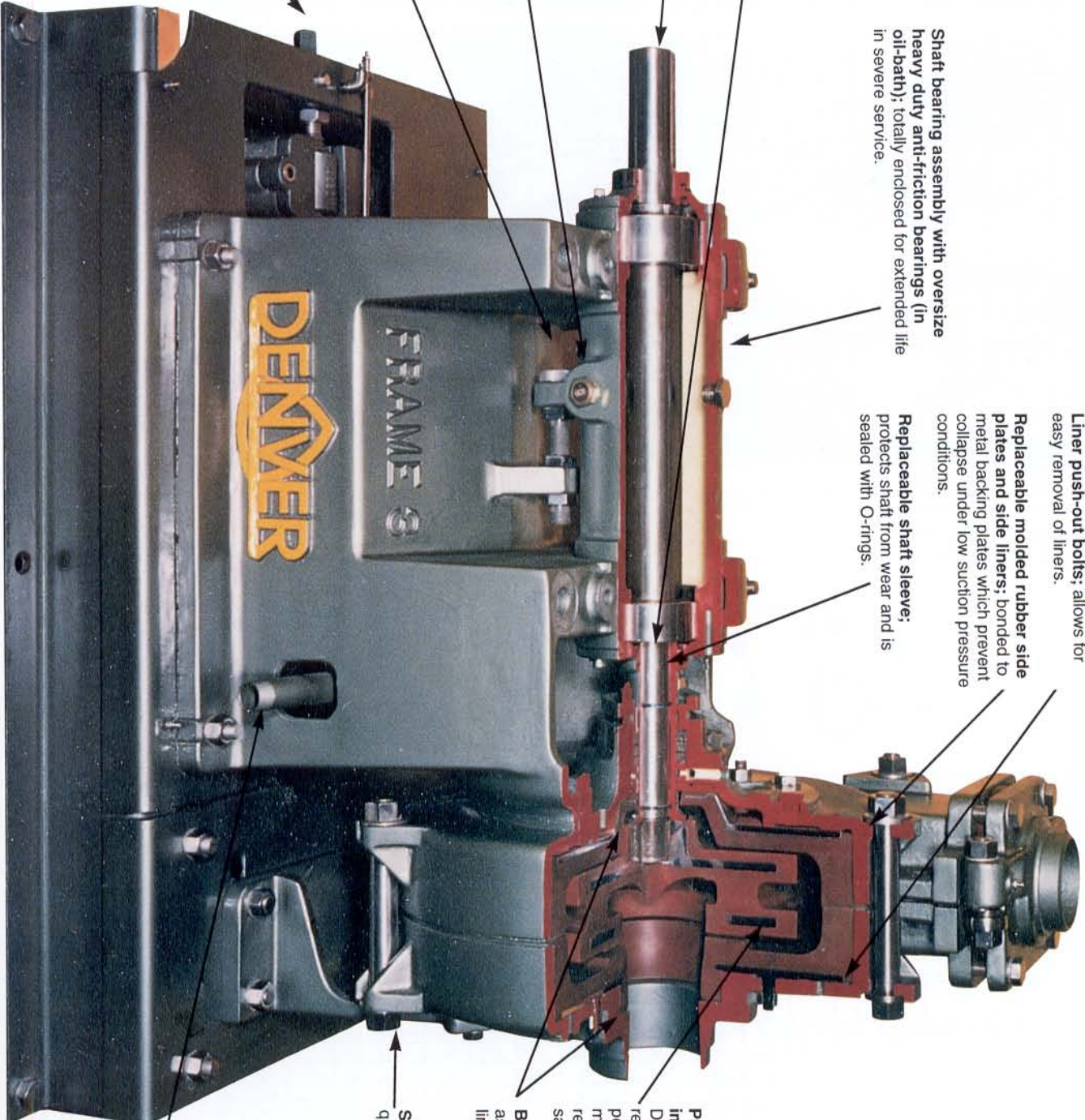
Oil seals and rotating slinger; minimizes contamination and prevents loss of oil for longer bearing life.

ALSI 4140 steel oversize shaft; offers minimum shaft deflection and longer bearing and seal life.

Oversize oil drain and sight glass; allows for quick oil changes and a visual check for oil level.

Externally adjusted impeller; saves time by eliminating shut-downs for adjustments. Proper clearance between impeller and case is easily maintained.

DENVER slide-type maintenance base (optional); allows access to pump wet end without disturbing piping; integral grease lubricated low-friction nylon bearing pads; may be manually or power operated.



Pressure molded impeller; formed of DENVER special abrasion resisting rubber and permanently bonded to metal inserts to give required rigidity without sacrificing wear life.

Bolted-in-place liners; assure quick, accurate liner installation.

Slotted bolt holes; for quick removal.

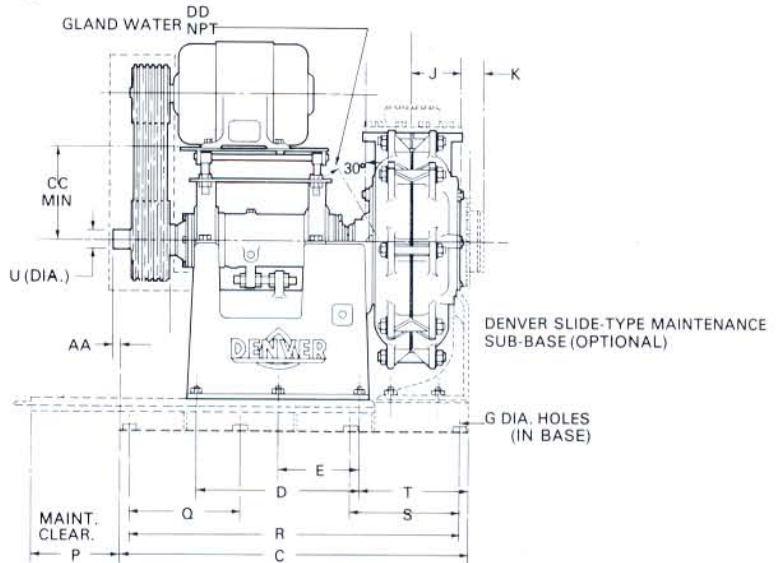
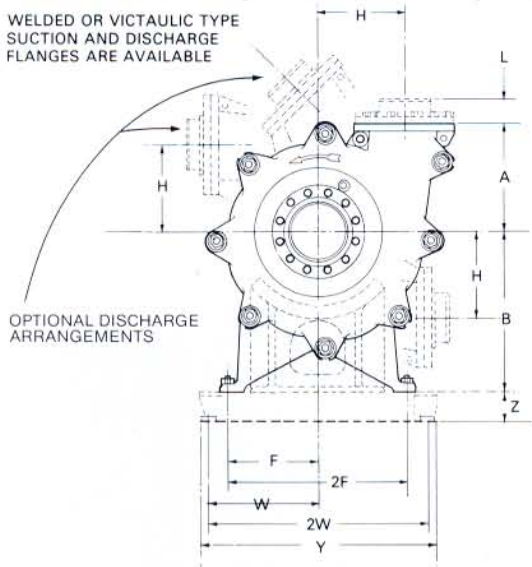
Gland "weep" attachment; improves plant housekeeping.

Engineering Specifications

DENVER SRL Size	Frame Size	Suction I.D. (inches)	Discharge I.D. (inches)	Max. Case Working Pressure (psig @ 150° F)		Gland Seal Water <input type="checkbox"/> Minimum		Max. Motor Size (HP) ** Overhead Base		Shaft Dia. (In.)			Packing		Shaft Sleeve Dia. (In.)	Net Weight Bare (Lb.)
				Std.	*Opt.	Lo-Flo	Ful-Flush	Speed	HP	At Imp.	Drive	Betw. Brgs.	Size	Rows		
1½x1¼	1	1½	1¼	60	—	0.5	2.5	1800 1200	10 5	1	1%	1¼	¾	4	1¾	310
2½x2	1	2½	2	60	—	0.5	2.5	1800 1200	10 5	1	1%	1¼	¾	4	1¾	330
3x3	2	3	3	60	—	1.0	4.0	1800 1200	25 15	1¼	1½	2½	¾	4	2	530
4x3	2	4	3	60	120	1.0	4.0	1800 1200	25 15	1¼	1½	2½	¾	4	2	660
5x4	3	5	4	60	120	2.0	5.0	1800 1200	50 30	1%	2%	2%	½	4	2½	1150
5x5	3	5	5	60	120	2.0	5.0	1800 1200	50 30	1%	2%	2%	½	4	2½	1120
6x6	3	6	6	60	120	2.0	5.0	1800 1200	50 30	1%	2%	2%	½	4	2½	1300
8x6	4	8	6	60	130	2.5	7.0	1800 1200	200 125	2	3%	4%	¾	5	4¼	2750
10x8	4	10	8	60	130	2.5	7.0	1800 1200	200 125	2½	3%	4%	¾	5	4¼	3160
12x10	5	12	10	175	—	3.0	10.0	1800 1200	250 200	3¼	3½%	5½	¾	5	5%	6180
14x12	5	14	12	175	—	3.0	10.0	1800 1200	250 200	4¼	4½	6	¾	5	5%	6755
16x14	5	16	14	175	—	3.0	10.0	1800 1200	250 200	4¼	4½	6	¾	5	5%	7072
18x16	6	18	16	80	—	4.0	16.0	1200	400 <input type="checkbox"/>	5	5	6¼	¾	5	6%	13000
20x18	7	20	18	80	—	4.5	18.0	1200	500 <input type="checkbox"/>	5½	6½	8	¾	5	8	15000

- Gland water requirement at a minimum pressure of 10 psi above pump discharge pressure.
- These motors are above NEMA motor frame.
- * Extra heavy duty cases in cast steel are available in 5x4 with a 360 psig rating and an 8x6 with a 400 psig rating.
- ** These sizes based on mounting clearances; check with factory for HP ratings of shaft and bearings.

WELDED OR VICTAULIC TYPE SUCTION AND DISCHARGE FLANGES ARE AVAILABLE



DENVER SRL-SIZE	A	B	C	D	E	F	G	H	J	K	L	P	Q	R	S	T	U	W	Y	Z	AA	CC <input type="checkbox"/>	DD
1½x1¼	6%	10	27½	13¼	—	7¾	¾	5½	2½	¾	1¼	6¼	12¼	25½	—	8½	1¾	11¾	24¾	6	¾	5¼	¼
2½x2	7½	10	27½	13¼	—	7¾	¾	5½	2½	¾	1¾	6¼	12¼	25½	—	8½	1¾	11¾	24¾	6	¾	5¼	¼
3x3	8¼	12	34	15½	—	9	¾	6¼	3¾	3	3¾	8¼	16	32	—	10½	1½	13	28	6	¾	6	¼
4x3	9½	12	34	15½	—	9	¾	6¼	3¾	3	3¾	8¼	16	32	—	10½	1½	13	28	6	¾	6	¼
5x4	14	16½	46	20	—	11½	1	8¾	4¾	3	3¾	11	22	44	—	15½	2¼	15½	33	6	¾	6½	¼
5x5	14	16½	46	20	—	11½	1	9¾	5¾	3	3¾	11	22	44	—	15½	2¼	15½	33	6	¾	6½	¼
6x6	15%	16½	46	20	—	11½	1	9¾	5¾	3	3¾	11	22	44	—	15½	2¼	15½	33	6	¾	6½	¼
8x6	15%	24	60	27	13½	17½	1¼	11½	7½	4	3¾	16	18	54	18	19%	3%	22	46½	6	2½	9½	½
10x8	17%	24	60	27	13½	17½	1¼	15	9	4	3¾	16	18	54	18	19%	3%	22	46½	6	2½	9½	½
12x10	22½	33	73	34	17	19	1¾	18	10	5	5	19	23	69	23	23¾	3½%	23½	49½	7	1½	23	¾
14x12	24	33	73	34	17	19	1¾	21	11¾	5	5	19	23	69	23	23¾	4½	23½	49½	7	—	23	¾
16x14	25	33	73	34	17	19	1¾	23	12¾	5	5	19	23	69	23	23¾	4½	23½	49½	7	—	23	¾
18x16	33	44%	96	32	16	17½	1¾	28¾	11¾	6	6	19	30	90	30	52½	5	23¼	53¾	1¼	—	—	¾
20x18	37	50	120	36	18	17½	1¾	32¾	12¾	6	6	19¼	27	108	27	61½	6½	24¼	53¾	2	—	—	1

Minimum Height

Metso Slurry Pumps

Our Range:

Orion and Thomas Series of Horizontal Rubber and Metal Lined Pumps

XR/XM, Extra Heavy Duty Pumps
HR/HM, Heavy Duty Pumps
MR/MM, Mining Duty Pumps
Dredge Pumps

The Sala Series of Vertical & Horizontal Rubber and Metal Lined Pumps

VF, Froth Pumps
VS, Sump Pumps
VT, Tank Pumps
ST, Recessed & Channel Impeller Pumps

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