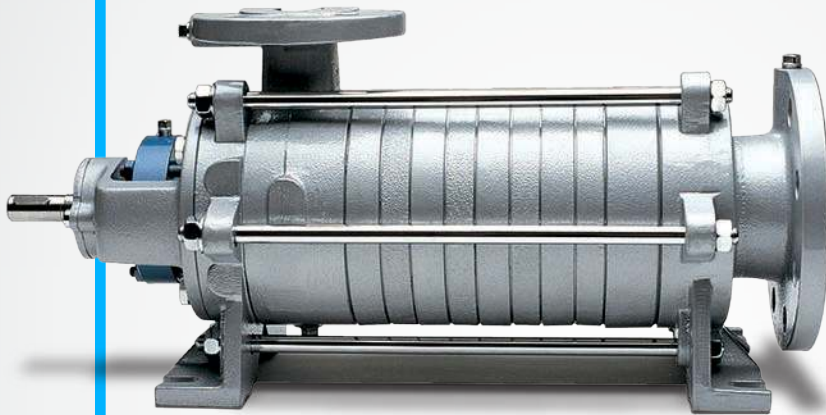


SC-Series

Multistage Side Channel Pumps



Mechanically Sealed (SC Model)



Sealless Magnetic Drive (SCM Model)

Solutions beyond products...

CORKEN[®]
IDEX

SC-Series Multistage Pump

Corken's SC-Series pumps are ideal for tough pumping conditions involving high differential pressures, low NPSH, and aerated liquids up to 50% gas. Unlike the sliding-vane and turbine designs, the side channel has an integral centrifugal impeller that combines with a multistage radial vane impeller providing a new dimension for liquid transfer applications.

The SC-Series is available in six pump sizes. Depending on the differential pressure required, each size can be configured with one to eight stages. Multiple material and sealing options suitable for a wide variety of liquids add to the versatility of these pumps.

Whether utilized in a high differential pressure application like carousel cylinder filling or specialized applications involving corrosive chemicals, the SC-Series is the right choice for difficult pumping environments.

Quiet and smooth transfer even at low NPSH...

The SC pump is cylindrical in shape so liquid enters the pump horizontally and flows parallel to the pump shaft. After moving through the pump stages, the liquid exits vertically through the discharge flange on the top of the pump. Horizontal flow ensures smooth and quiet transfer every time. The proprietary centrifugal impeller near the inlet keeps the pump primed at all times. The self-priming capabilities make it ideal for low NPSH conditions.

Multistage design delivers higher differential pressures...

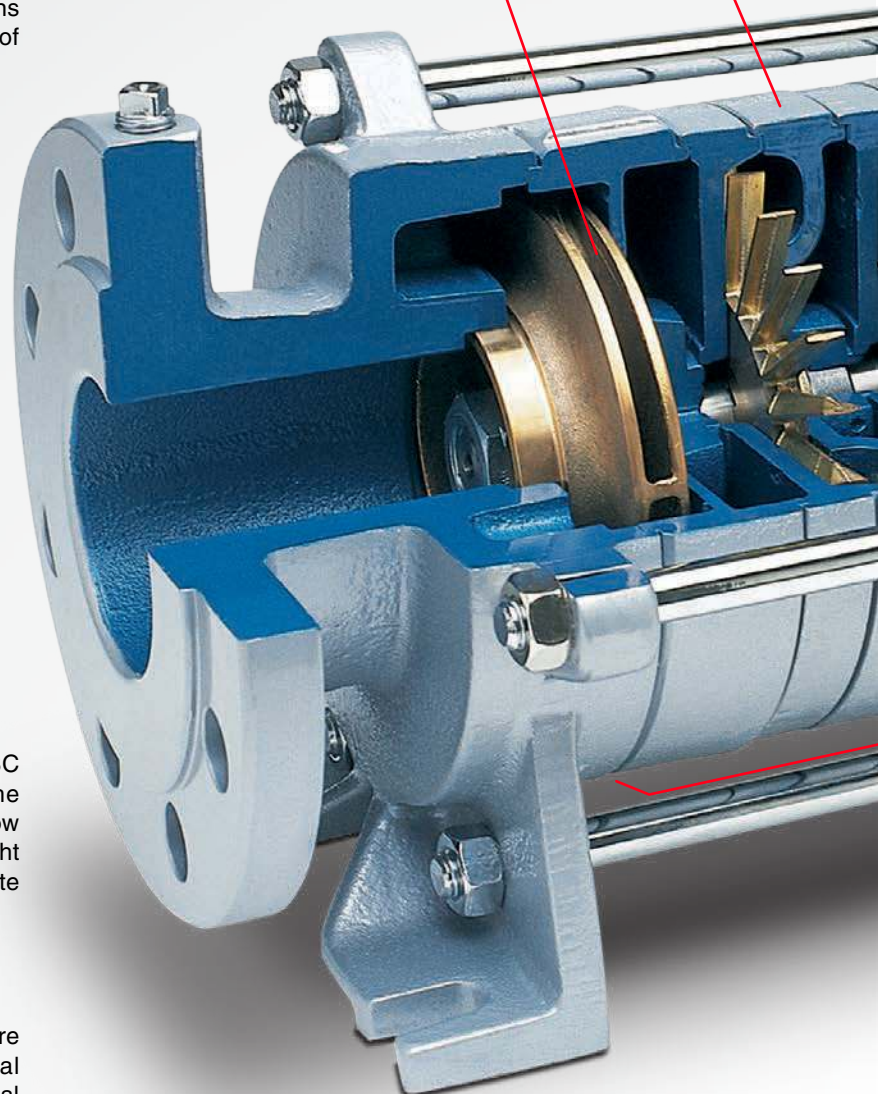
In addition to the self-priming capabilities, the Corken SC pump line utilizes a multi-stage side channel design. The multistage construction and self-priming capability offer flow characteristics that make this pump special. With one to eight stages, the centrifugal and radial vane impellers accommodate a wide range of differential pressures.

Multiple seal options...

In a time when leakage control is becoming more and more prevalent, the SC-Series offers a complete range of seal options. Whether your application calls for packing, mechanical seals (single or double), or even sealless designs, the SC pump will meet your needs.

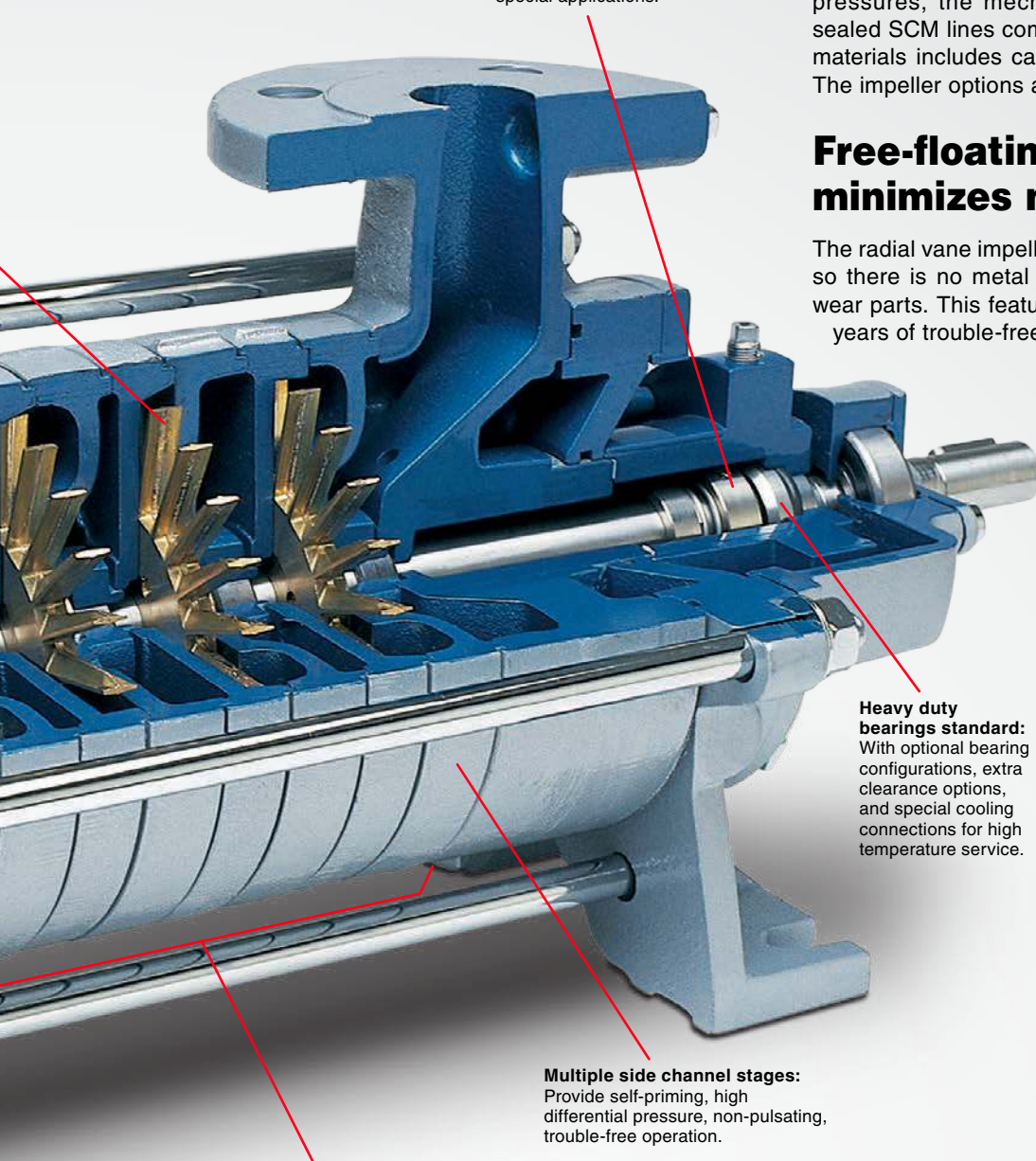
Multiple material options for impellers and casing: Enables the pump to handle a wide variety of liquid applications.

Proprietary centrifugal impeller design: Ensures efficient transfer even at low NPSH conditions.



Model SC24 shown above

Features & Benefits



Highly reliable single mechanical seals standard: With numerous seal options for special applications.

Multiple material options...

To handle a variety of corrosive liquids with extreme differential pressures, the mechanically sealed SC and magnetically sealed SCM lines come with multiple material options. Casing materials includes cast iron, ductile iron, and stainless steel. The impeller options are brass, steel, and stainless steel.

Free-floating design minimizes maintenance.

The radial vane impellers within the SC-Series are free floating so there is no metal to metal contact which results in fewer wear parts. This feature minimizes maintenance and provides years of trouble-free service.

Backed by a strong service commitment...

The SC-Series pump line is backed by Corken's strong technical support group, field training, and a worldwide network of distributors.

Heavy duty bearings standard: With optional bearing configurations, extra clearance options, and special cooling connections for high temperature service.

Multiple side channel stages: Provide self-priming, high differential pressure, non-pulsating, trouble-free operation.

Modular construction: Minimizes spare parts requirements.

Applications

- Cylinder filling
- Truck filling
- Vaporizer feeding
- General transfer
- Refrigerant transfer
- Aerosol charging
- Chemical transfer
- Boiler feed
- And many more

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Operating Specifications

Model	10	20	30	40	50	60
Number of Stages	1 to 8					
Inlet Flange: in (mm)	1.50 (40)	2.50 (65)	2.50 (65)	3.00 (80)	4.00 (100)	4.00 (100)
Outlet Flange: in (mm)	0.75 (20)	1.25 (32)	1.25 (32)	1.50 (40)	2.00 (50)	2.50 (65)
RPM	60 Hz	1,150 and 1,750				
	50 Hz	1,450				
Maximum Working Pressure: psi (bar)	580 (40)					
Differential Range Head: ft (m)	50–690 (15–210)	65–1,050 (20–320)	30–820 (10–250)	30–805 (10–245)	30–950 (10–290)	30–1,150 (10–350)
Minimum Temperature	-40°F (-40°C)					
Maximum Temperature	430°F (220°C)					
NPSHR Range: ft (m)	1.6–13 (0.5–4)	2–3.3 (0.6–1)	1.6–6.6 (0.5–2)	1.3–8.2 (0.4–2.5)	1.3–12 (0.4–3.5)	4.6–8.2 (1.4–2.5)
Max Viscosity: SSU (cSt)	1,050 (230)					
Max Proportion of Gas Allowable	50%					

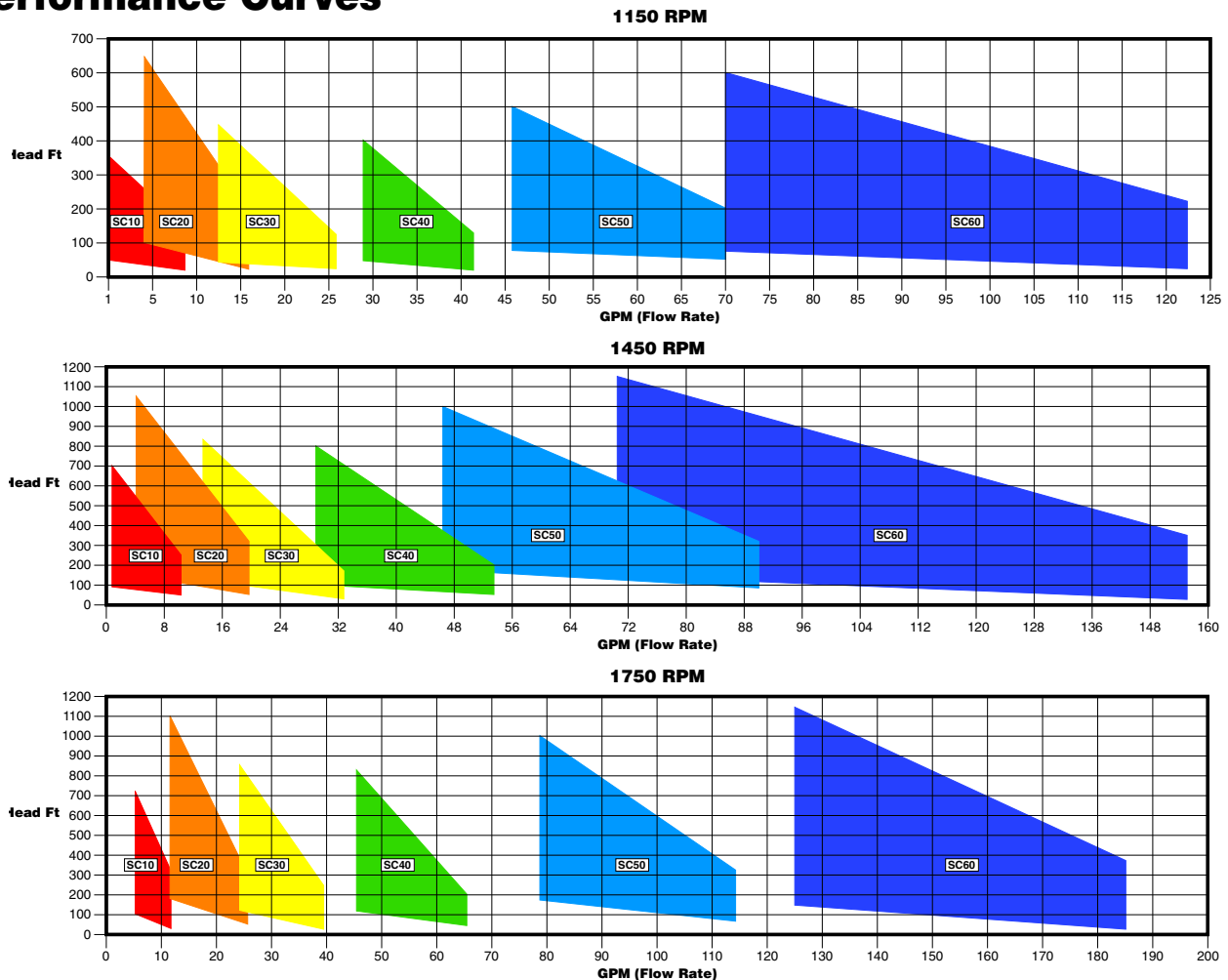
Options (for all series)

- Casing Material:**
- Cast iron
 - Ductile iron
 - Stainless steel
- Impeller Material:**
- Brass
 - Steel
 - Stainless steel

- Sealing Options:**
- Packing glands—balanced, unbalanced and external flush
 - Single mechanical seal—balanced, unbalanced and quench option
 - Double mechanical seal—balanced and unbalanced

- High Temperature Options:**
- Increased clearance
 - High temperature bearings
 - Cooling connections

Performance Curves



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