

How to read the pump model

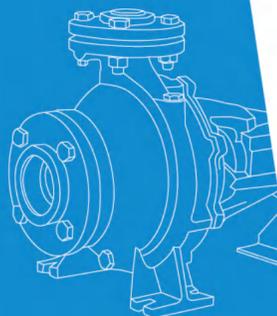
Pump model:
SCA 80 / 160 A

A - Cutting times of impeller

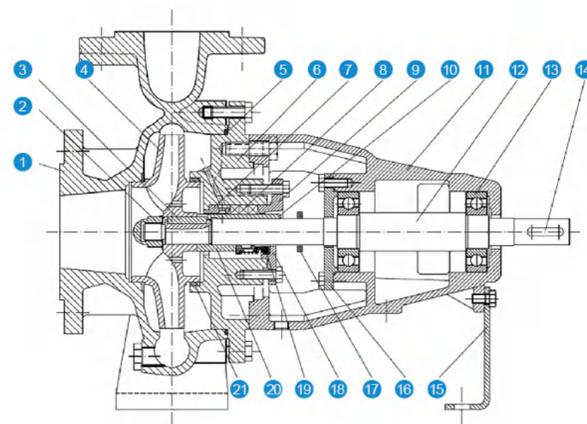
Nominal diameter of impeller: 160mm

Discharge diameter: DN80 (mm)

SCA type single stage single suction centrifugal pump



Pump cross-sectional drawing



NO.	Description	NO.	Description	NO.	Description
1	Pump casing	8	Packing	15	Support
2	Impeller nut	9	Gland cover	16	Bearing cover
3	Key for Impeller	10	Packing sleeve	17	Deflector
4	Impeller	11	Bearing housing	18	Mech. Seal cover
5	O-ring	12	Shaft	19	Mech. Seal
6	Pump cover	13	Bearing	20	Seal spacer
7	Packing ring	14	Key for coupling	21	Wear ring

Recommended material combinations (table of pumped media)

NO.	Pumped medium	Description	CI-3 CI-4	CI-1 CI-2	CI-2	CF CFM	First choice	Gland packing	Mech. seal	Remarks / additional recommendations
1	Petrol (gasoline) / kerosene		x	x	+	+	CI-2	x	+	
2	Diesel fuel		x	x	+	+	CI-2	x	+	
3	Brackish water		x	x	x	x	CFM	+	+	
4	Sea water		x	x	x	o		+	+	
5	River water	containing up to 0.1 g/l of solids	o	+	+	+	CI-2	+	+	
6	Rainwater	prescreened mechanically	+	+	+	+		+	+	
7	Industrial water		+	+	+	+		+	+	
8	Raw water	containing up to 0.1g/l of solids	+	+	+	+	CI-2	+	+	
9	Fire-extinguishing water		+	+	+	+		+	+	only without NFPA-certification
10	Pure water		+	+	+	+		+	+	
11	Potable water		x	+	o	+	CI-2	+	+	including internal coat of paint approved for drinking water applications on standard
12	De-mineralised water		x	o	o	+	CFM	+	+	
13	Cooling water		+	+	+	+	CI-2	+	+	
14	Condensate		x	x	o	+	CI-3 CI-4	x	+	
15	Hot water		x	x	+	+	CI-2	x	+	
16	Heating water		x	x	+	+	CI-2	x	+	
17	Boiler feed water		x	x	x	+	CI-3	+	+	
18	Cooling tower water		x	x	x	+	CI-4	+	+	Observe temperature limit of 105°C.
19	Washing water		+	+	+	+	CI-2	+	+	
20	Industrial water	neutral (pH=6...8)	+	+	+	+		+	+	
21	Industrial water	Slightly acidic/basic (pH=4...9)	x	x	x	+	CFM	x	+	
22	Industrial water	highly acidic/basic (pH=1...11)	x	x	x	+	CFM	x	+	
23	Water / sand mixture	continuous operation: max. solids content 0.1 g/l intermittent operation: max. solids content 0.2 g/l	o	o	o	+	CI-3 CI-4	o	+	
24	Scale-forming water		x	x	x	+	CI-3 CI-4	x	+	On request (solids content and grain size to be indicated)

Notes:
1. + = Suitable, o = Suitable with reservations, x = Not suitable
2. Maximum working temperature 105 °C
3. Maximum solids content of the medium pumped 0.1 mg/l with continuous operation; 0.2 g/l with intermittent operation.
4. Due to chemical, physical composition and applications of medium is quite complicated, the material of the above-mentioned recommended scheme is only a reference, not as a final selection order.

Material of Structure

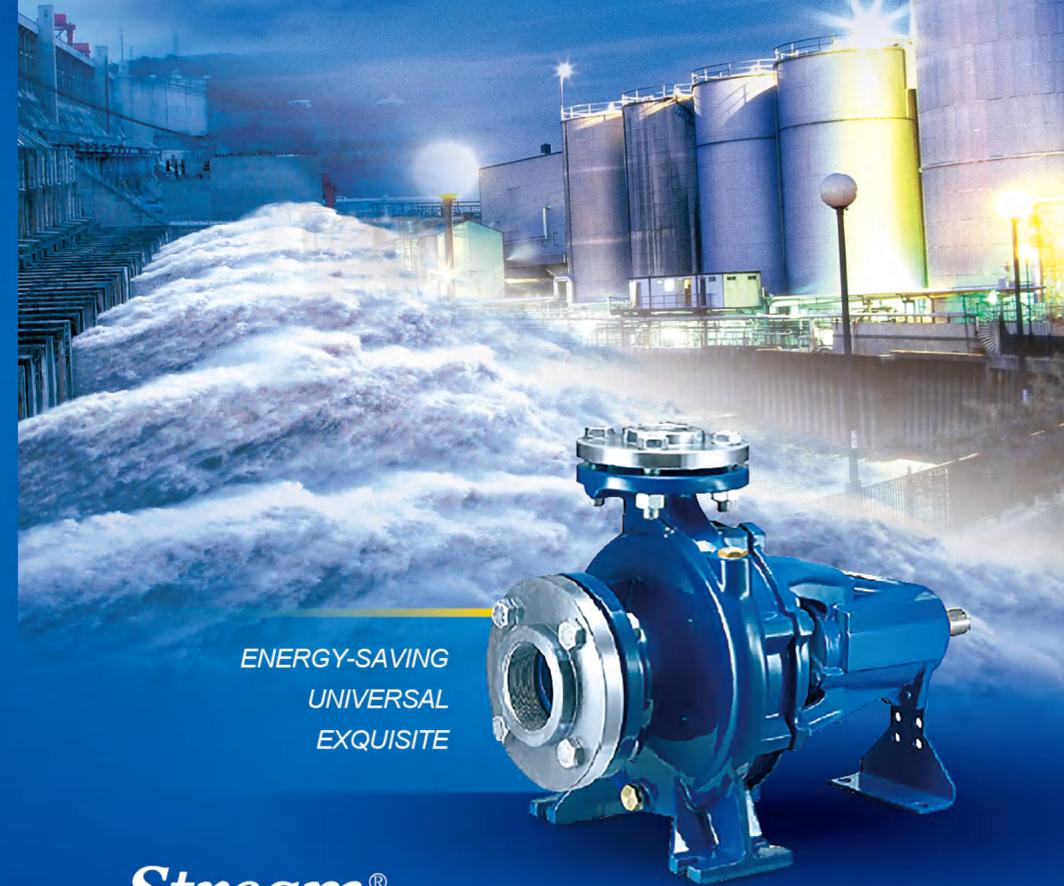
Part Name	Material Code					
	CI-1	CI-2	CI-3	CI-4	CF	CFM
Casing	Cast iron(GG-25)	Cast iron(GG-25)	Cast iron(GG-25)	Cast iron(GG-25)	Stainless steel(CF-8)	Stainless steel(CF-8M)
Cover	Cast iron(GG-25)	Cast iron(GG-25)	Cast iron(GG-25)	Cast iron(GG-25)	Stainless steel(CF-8)	Stainless steel(CF-8M)
Casing wear ring	Cast iron(GG-25)	Bronze(BC6)	Stainless steel(CF-8)	Stainless steel(CF-8M)	Stainless steel(CF-8)	Stainless steel(CF-8M)
Impeller	Cast iron(GG-25)	Bronze(BC6)	Stainless steel(CF-8)	Stainless steel(CF-8M)	Stainless steel(CF-8)	Stainless steel(CF-8M)
Shaft	Stainless steel(AISI420)	Stainless steel(AISI420)	Stainless steel(AISI420)	Stainless steel(AISI420)	Stainless steel(AISI304)	Stainless steel(AISI316)
Sleeve	Stainless steel(AISI420)	Stainless steel(CF-8)	Stainless steel(CF-8)	Stainless steel(CF-8M)	Stainless steel(CF-8)	Stainless steel(CF-8M)
Gland cover	Cast iron(GG-25)	Cast iron(GG-25)	Cast iron(GG-25)	Cast iron(GG-25)	Stainless steel(CF-8)	Stainless steel(CF-8M)
M.S. cover	Stainless steel(CF-8)	Stainless steel(CF-8)	Stainless steel(CF-8)	Stainless steel(CF-8)	Stainless steel(CF-8)	Stainless steel(CF-8M)
Bearing housing	Cast iron(GG-20)	Cast iron(GG-20)	Cast iron(GG-20)	Cast iron(GG-20)	Cast iron(GG-20)	Cast iron(GG-20)
Shaft seal	Gland packing / Single mechanical seal					
Bearing	China brand / NSK / SKF					



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SCA END-SUCTION BARE SHAFT PUMP

DIN24255, BS EN733 and ISO9908



ENERGY-SAVING
UNIVERSAL
EXQUISITE

www.streampumps.com

Stream[®]
Sign of Quality



Applications

Water supply and transfer in municipal and industrial applications.
Water treatment plants.
Air-conditioning systems.
Circulation in cooling and heating systems.
Irrigation and sprinkler pumping stations.

General description

SCA series single stage end-suction bare shaft pump is based on new technology. It is successfully designed based on long-term technology accumulation and the experience of domestic and overseas advanced technology. The casing is end suction and radial discharge design. Its discharge centerline and shaft are in the same vertical plane. The casing is directly fixed on the base-plate. The pump is back-pull-out design, which allows disassembling the casing cover and rotary components without removing the pipe. The mounting frame is supplied with two ball bearings, lubricated by grease or engine oil. The suction and discharge flange, the casing and pump foot are all cast to a whole. The pump complies with DIN24255 and BS EN733 standard, which have high interchangeability.

Specifications

Pump inlet: DN50 - DN100 mm
Pump outlet: DN32 - DN80 mm
Capacity range (Q): 4.5 m³/h - 240 m³/h
Head range (H): 10m - 100m

Operation conditions

Operating speed: 1450 ~2900 rpm (50HZ), 1750 ~ 3500 rpm (60HZ)
Max. Viscosity: 1Cp, Normal temperature (24°C)
Working Temperature Range: -15°C ~ 105°C
Max. Allowable Suction Pressure (MASP): PN0.6MPa
Max. Allowable Working Pressure (MAWP): PN1.0MPa or PN1.6MPa

The direction of rotation

The rotation of the pump rotor is clockwise looking from the motor to the pump.

The driving type

The motor drives the pump through the flexible coupling directly.

Operating limits

Operating range : 0.5 to 1.2 x QOpt
• Qopt — Pump operating point

Pressure Limits

Standard hydrostatic test pressure
The standard test pressure is calculated as follows:
1.2 x (HQ=0+ HInlet) or 1.5 x (HQ=Qopt+ HInlet), The higher value is to be used
• HQ=0 — Head at close the valve
• HInlet — Pump max. inlet pressure
• Qopt — Pump operating point

