EBARA HG

Ahead > Beyond

XCS Series – Screw Centrifugal Solids Handling Pumps

SOLIDS HANDLING PUMPS



XCS Series – Screw Centrifugal
Solids Handling Pumps

Clog-free pumping action. For large or stringy solids, shear sensitive fluids and delicate materials.

APPLICATIONS:

WASTE TREATMENT
- Sludges
- Sewage
- Flocculants

FOOD PROCESSING
- Live Fish
- Fruits
- Vegetables

PULP & PAPER
- Wood Chips
- Medium Density Pulp Stock
- Sludges

CHEMICAL / PETROCHEMICAL
- Oil/Water Separators
- Crystal Slurries
- Non-Newtonian Slurries

MINING
- Carbon and Resin Slurries
- Solvent Extraction





THE SCREW CENTRIFUGAL DESIGN

The Hayward Gordon branded XCS screw centrifugal pump line offers a unique set of advantages for handling thick sludges, large or stringy solids, shear sensitive fluids, and delicate materials.

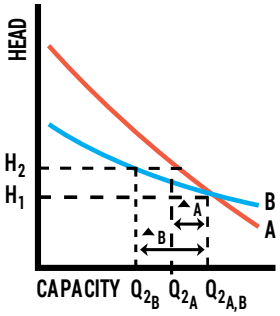
The XCS open channel screw centrifugal impeller combines gentle, clog-free pumping action with high efficiency and non-overloading characteristics.

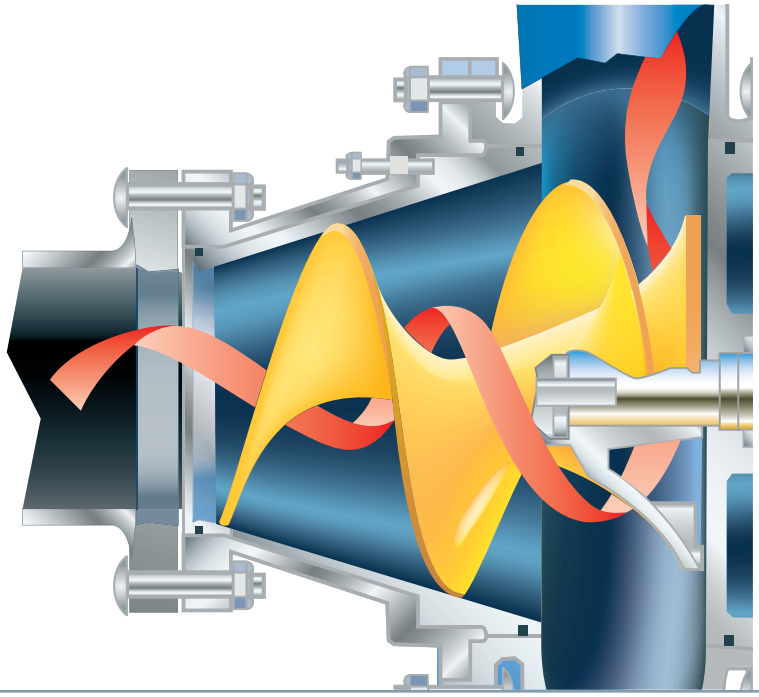
For abrasive solids, EBARA HG's proven clamp type construction permits the manufacture of wet-end components in wear resistant hard metals.

Steep Performance Curve

The steep head-capacity curve means that reserve head is available to keep thick fluids moving even if sludge consistency increases. The positive displacement action of the screw section and low NPSHR means that XCS pumps are capable of inducing the suction required to get these fluids moving.

XCS pump performance represented by Curve A is less sensitive to changes in head than pumps with flatter performance curves (Curve B).



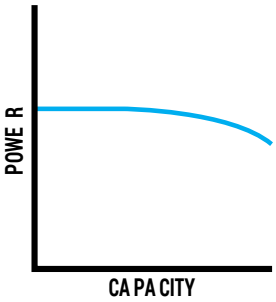


XCS ADVANTAGES



High Efficiency

The combined screw-centrifugal action provides smooth flow, low turbulence and minimum hydraulic losses. This translates directly into reduced power costs through lower energy consumption.



Non-Overloading Power Curve

The power requirements of the Hayward Gordon XCS line are relatively constant when compared to other pump designs. In many cases, the power consumption actually drops with increasing capacity. Motor overloading will not occur when capacity increases due to a drop in head. Capital and operating costs are thereby reduced by not having to ,purchase and operate oversized motors.

Pump & Motor Features

1 Materials
Pump end materials of construction include: High Chrome Iron and Ni-Hard for abrasive applications; PLUS Cast Iron, Ductile Iron, 316SS, and other alloys.

2 Hard Metal Construction
Clamp type construction eliminates drilled and tapped holes to permit wider use of abrasion resistant hard metals.

3 Adjustable Liner
Optional externally adjustable suction liner for convenient adjustment of impeller clearance.

4 Sealing Options
Split bronze gland for easy replacement of packing rings. A wide range of mechanical seals is also available.

5 Long Bearing Life
Oversize grease or oil lubricated bearings for extended service life.

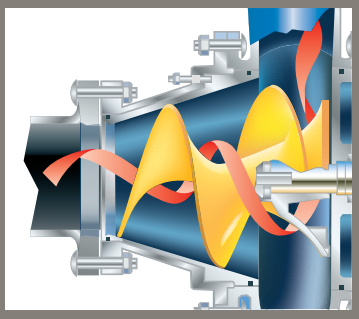
6 Oversized Shafting
All shafts are heavy duty design complete with shaft sleeves through the sealing area.

7 Non-Clog Design
Efficient, open-channel, non-clog impeller for smooth passage of large or delicate solids.

8 Impeller
Impeller pump out vanes or spiral grooves keep solids away from seal area, reduce axial thrust and increase seal/packing life.

9 Back Pullout
Back pullout design featuring solid foot-mounted casing, allows servicing of powerframe without disturbing suction or discharge piping.

FEATURES AND BENEFITS



Clog-Free Operation

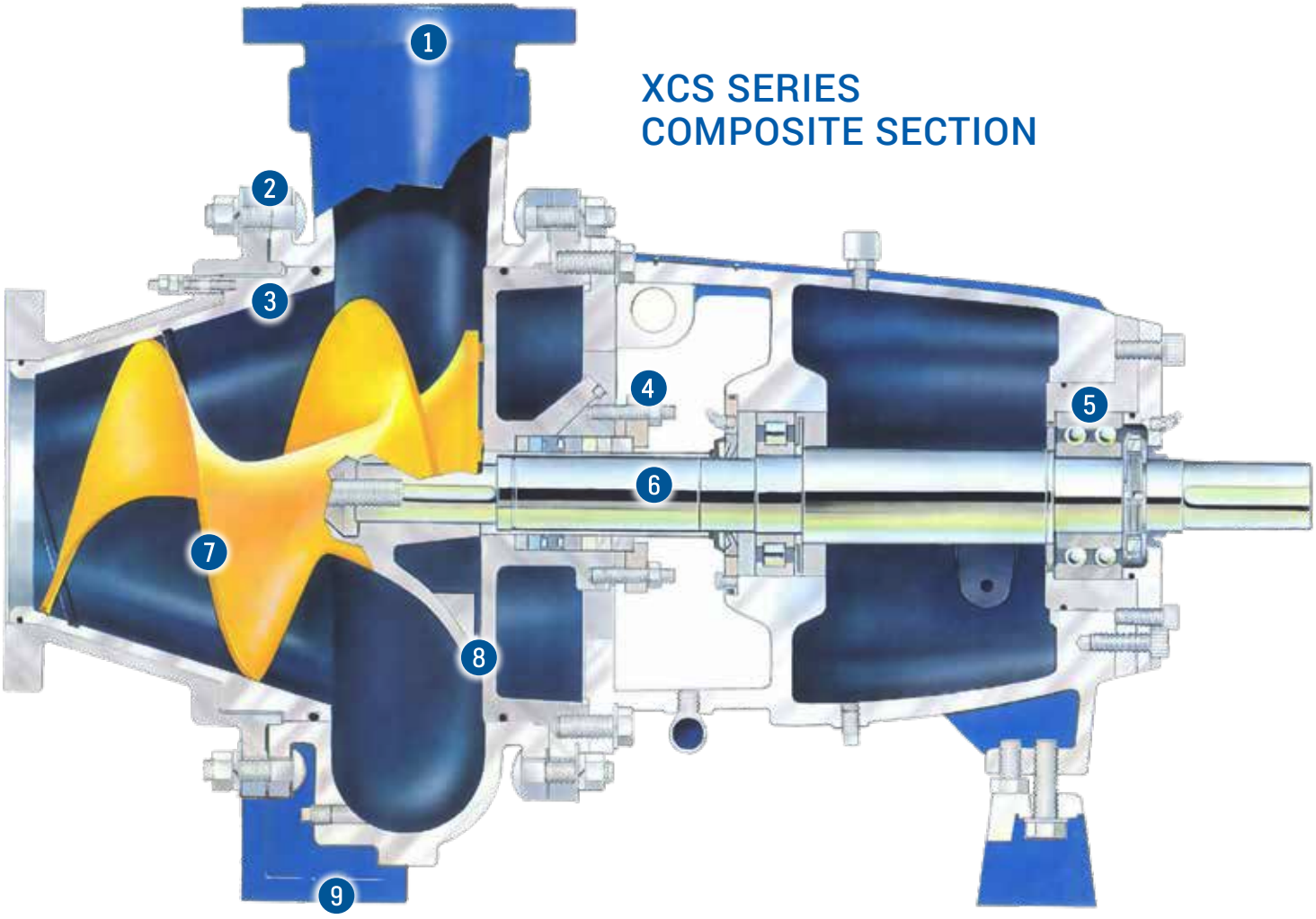
The large, open channel design allows material to be pumped without restrictions or abrupt changes in direction. There are no exposed blades or edges for solids to catch on. Maintenance due to clogging is virtually eliminated.

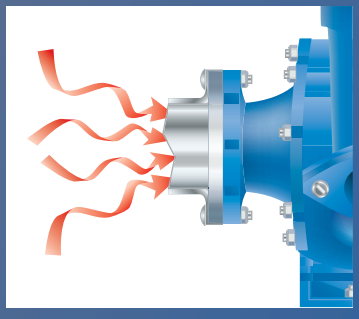


Abrasion Resistant Construction

EBARA HG's proven clamp type construction eliminates the need for drilled and tapped holes on wet-end components. This allows construction in a variety of hard metals including Ni-Hard and High Chrome Iron. Also offered is an externally adjustable suction liner that allows convenient adjustment of internal clearances to compensate for wear. These XCS advantages provide long service life in abrasive applications.

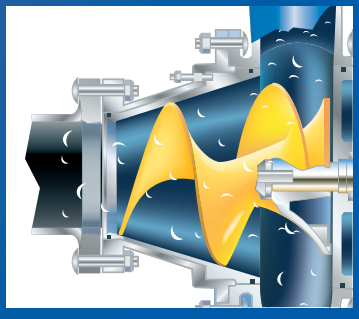
XCS SERIES
COMPOSITE SECTION





Low NPSH Requirements

The NPSHR (net positive suction head requirement) of Hayward Gordon XCS pumps is extremely low compared to other centrifugal pumps. The suction inducing effect of the impeller's screw section allows the pump to handle thick sludges, hot liquids, and liquids near their vapour pressure without the expense of having to construct an elevated liquid source.

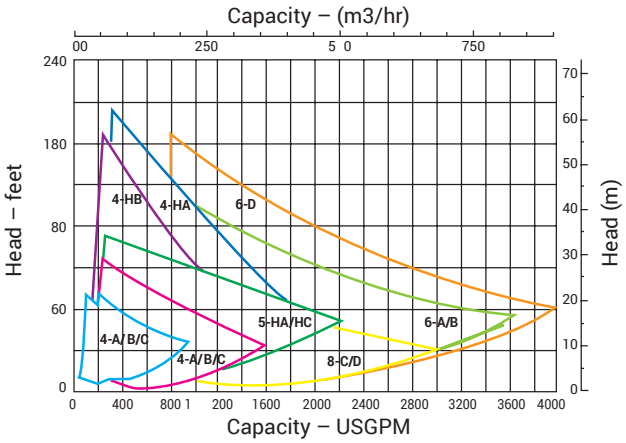


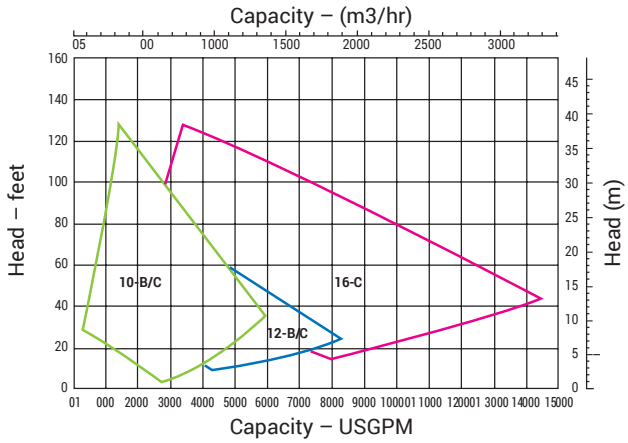
Gentle Pumping Action

The XCS's smooth, non-turbulent flow path and large open channel from suction to discharge, allows delicate or shear sensitive material to pass gently through the pump without damage. Fruits, vegetables, flocculants, crystal slurries, and even live fish are easily handled.

Pump Specifications

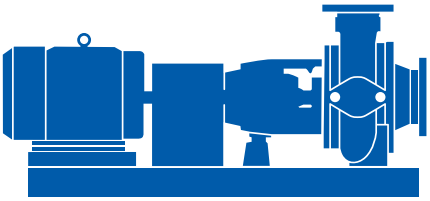
PERFORMANCE RANGE





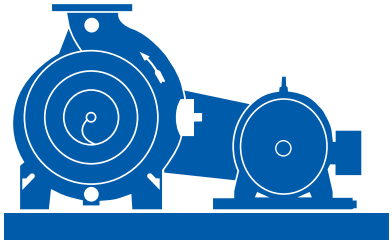
DRIVE CONFIGURATIONS

In addition to the arrangements shown, Hayward Gordon branded XCS Series pumps can be manufactured in custom configurations.



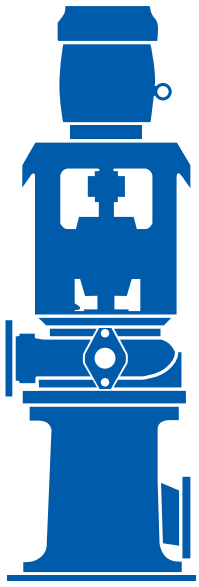
Direct Drive

Motor directly coupled to the pump utilizing a spacer type coupling for back pull-out convenience. Hard metal impellers can be trimmed to size.



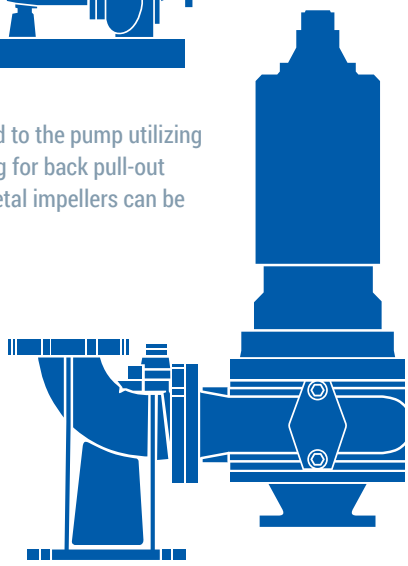
V-Belt

Standard side by side mount or overhead mounting of motor. Base design permits easy access to the pump for service and back pull-out.



Vertical Dry Pit

For mounting outside of tanks.



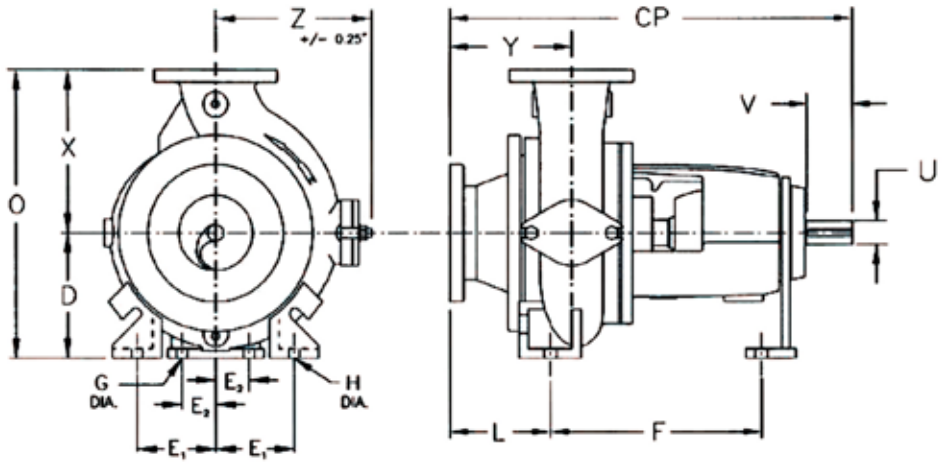
Submersible

For totally submerged operation.

XCS PUMP DIMENSIONS

Dimensions shown in shaded areas are inches, others are in millimeters.

NOT FOR CONSTRUCTION USE.



Pump Model	Suction and Discharge size		CP	D	E_1	E_2	F	G	H	L	U		O	V	X	Y	Z	Wt. Lb. Kg.
	SUCT	DISC									DIA.	KEYWAY						
XCS4-A/B	4	4	27.4	8.25	5.75	1.75	15.4	.75	.75	5.23	1.38	.31 x .31	18	3	9.75	6.9	10	350
	100	100	696	210	146	44.5	391	19	19	133	35	7.9 x 7.9	457	77	248	174	254	159
XCS4-C	4	4	28.9	8.25	5.75	1.75	15.4	.75	.75	6.78	1.38	.31 x .31	19.0	3	10.8	7.75	10.13	360
	100	100	734	210	146	44.5	391	19	19	166	35	7.9 x 7.9	483	77	273	197	268	164
XCS4-HA/HB	8	4	38.8	13.5	8.12	6.5	21.75	.62	.87	9.5	2.18	.50 x .50	28	4.25	14.5	9.5	13.2	875
	200	100	986	343	206	165	553	16	22	241	55	12.7 x 12.7	711	108	368	241	335	398
XCS5-A/B/C	6	5	32.4	10	6.38	4.38	16.75	.62	.87	8.06	1.88	.50 x .50	23.1	3.7	13.1	9.8	12.6	500
	150	125	823	254	162	111	425	16	22	205	48	12.7 x 12.7	586	94	333	246	321	227
XCS5-HA/HC	10	5	43.1	15.5	12.0	6.5	23.7	1.0	1.0	9.0	2.63	.63 x .63	33.6	6	18.1	12.0	17.4	1160
	250	125	1095	394	305	165	602	25.4	25.4	229	66.8	16 x 16	853	152	460	305	442	2560
XCS6-A/B/D	8	6	43.6	13.5	8.12	6.5	23.7	.62	.87	10.8	2.18	.50 x .50	29.5	4.25	16	13.5	15.3	900
	200	150	1107	343	206	165	602	16	22	273	55	121.7 x 12.7	749	108	406	343	389	409
XCS8-C/D	8	8	33.9	13.5	8.12	4.38	18.7	.62	.87	7.9	1.88	.50 x .50	29.2	3.7	15.7	10.9	16.4	700
	200	200	861	343	206	111	475	16	22	201	48	12.7 x 12.7	742	94	399	277	417	318
XCS10-B/C	10	10	44	15.5	12	6.5	23.6	1	1	13.5	2.18	.50 x .50	35.5	4.25	20	13.5	19.92	1400
	250	250	1118	394	305	165	600	25.4	25.4	343	55.4	12.7 x 12.7	902	108	508	343	506	636
XCS12-B/C	12	12	50.1	21	13	6.5	24.6	1	1	18	2.63	.63 x .63	48	6	27	18	24.41	1750
	300	300	1271	533	330	165	625	25.4	25.4	457	66.8	16 x 16	1219	152	686	457	620	795
XCS16-C	16	16	65	26	18	6.5	33.0	1.25	1.25	20	3.38	.88 x .88	46	7	20	20	30.5	2950
	400	400	1651	660	457	165	838	32	32	508	86	22.2 x 22.2	1168	178	508	508	775	1340

About EBARA HG

When it comes to manufacturing high-performing, long-lasting, cost-effective pumps, mixers, and mixing systems, our Hayward Gordon brand is the gold standard – trusted by hundreds of companies around the world.

No matter how challenging or demanding your pumping and mixing application might be, we have the experience, expertise, and equipment to deliver an ideal processing solution that meets all your needs.

Our trained experts work closely with you to determine the best equipment and system to give you the perfect solution.

We at EBARA HG are here to make your job easier, your products better, and your operation more efficient.

EBARA HG is a subsidiary of the EBARA Corporation.

Founded in 1912, EBARA Corporation is recognized as a world leader in the design, development, and manufacture of industrial machinery.

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