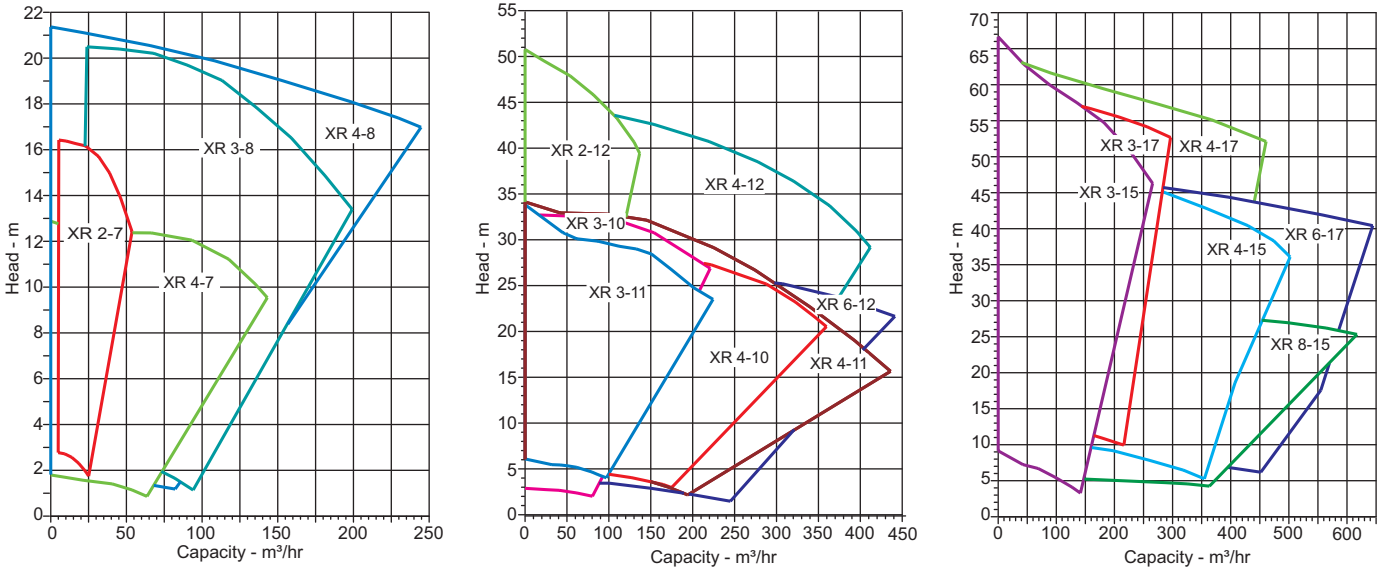
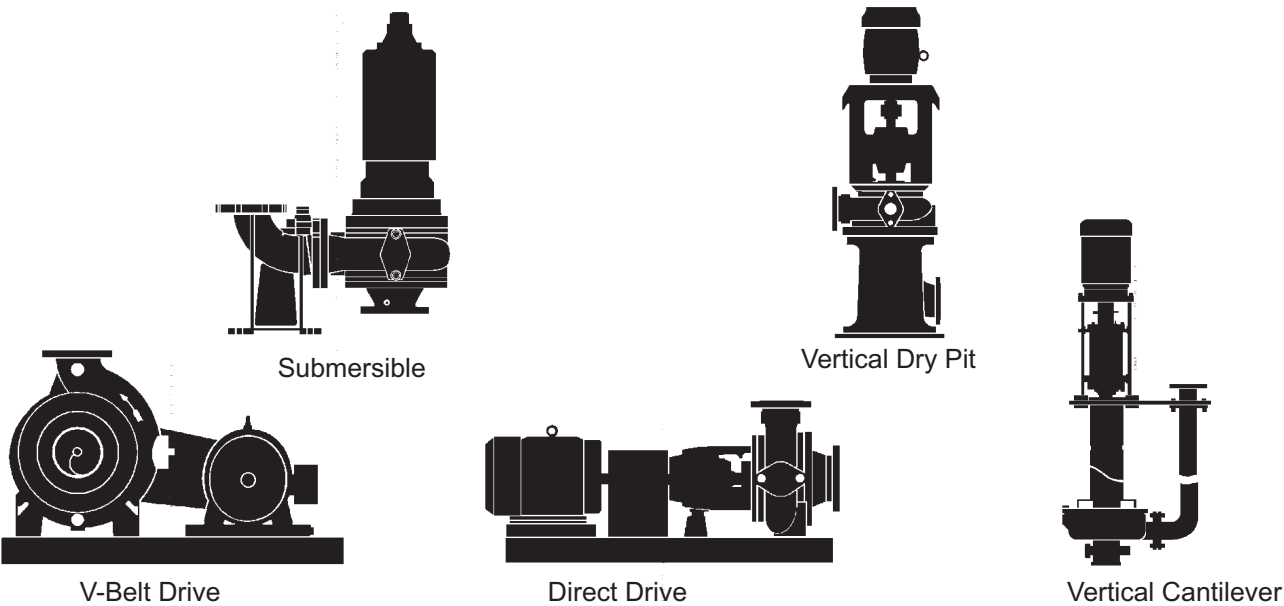


■ Selection Charts



■ Configurations



■ About Ebara Corporation and Hayward Gordon

Established as a Japanese pump manufacturer in 1912, **EBARA Corporation** has developed businesses in the fields of fans and blowers, chillers, environmental plants, and the precision machinery industry. In October 2022, they acquired the Hayward Gordon Group to expand their product portfolio with Hayward Gordon's heavy-duty products.

Hayward Gordon encompasses three industry-leading brands in the pump and mixer market: Hayward Gordon, Sharpe Mixers, and Scott Mixers. The Company is a leader in solids handling pumps for water and wastewater treatment and has been offering one of the broadest lines of industrial and sanitary mixers in North America for more than six decades. The company operates facilities in Halton Hills, ON, Canada (Toronto area) and Adelanto, CA, USA.

Recessed Vortex Impeller Pumps

Model **TORUS**

The ideal solution for pumping fluids containing large solids, abrasives, delicate crystals, fibres, stringy materials and gases.



Dealer

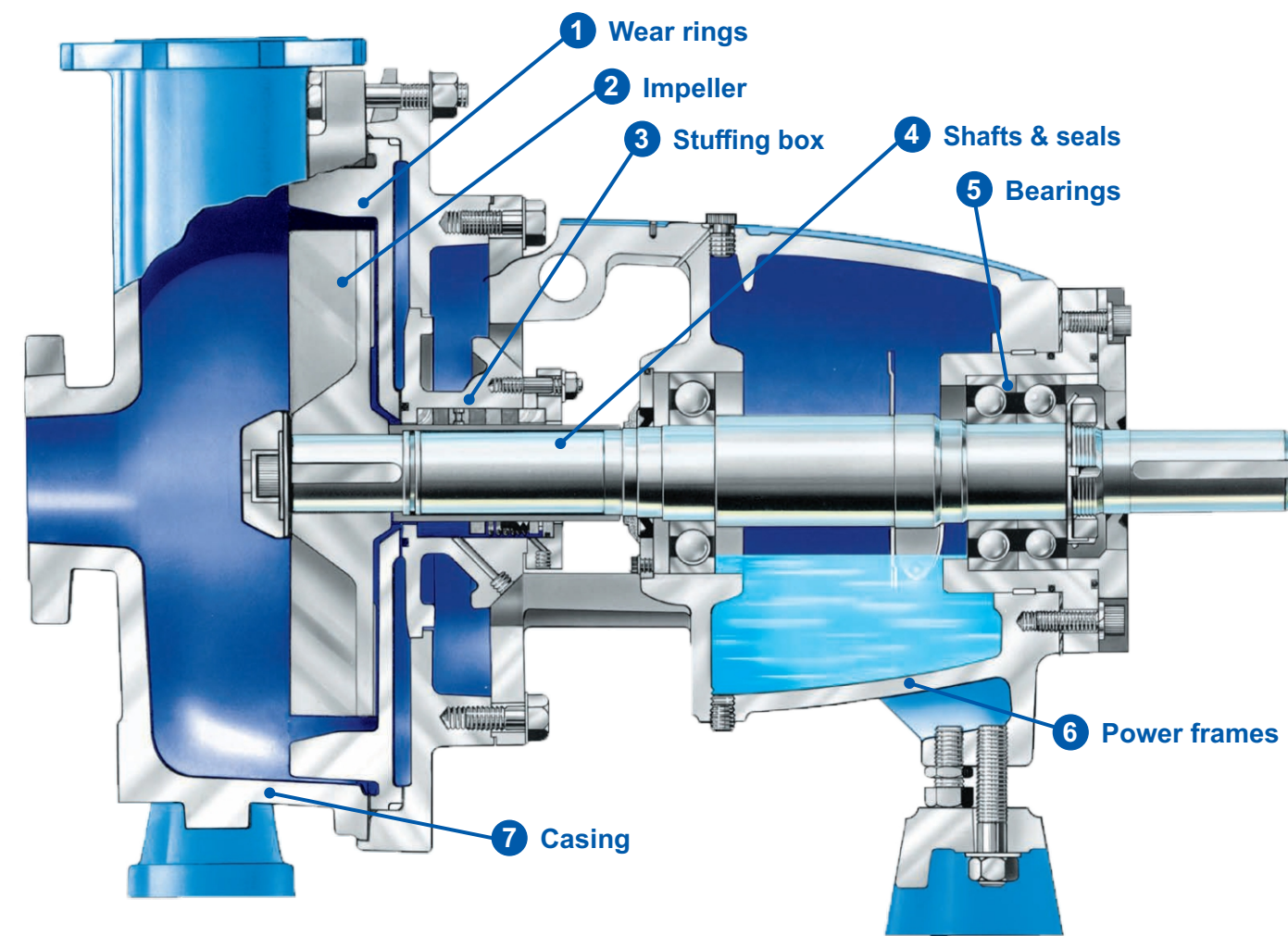


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■ Features



1 Wear rings

"R" and "XR®" models feature a unique, low cost, sacrificial wear ring and back plate. The "XR®" wear rings are made extra heavy in hard metals to absorb the wear under extremely abrasive conditions.

2 Impeller

The fully recessed impeller allows clear passage of all solids that will pass the casing discharge port and easily handles large, stringy, delicate, sticky or abrasive solids without clogging. Positive eductor back vanes maintain low pressure at the packing or mechanical seal. Because the impeller is concentric in the casing, it virtually eliminates radial loads making the TORUS wet-ends an excellent choice for use in vertical cantilever pumps. All impellers including those of hard metal construction such as Super Ni-Hard are machined and positively keyed to the shaft.

3 Stuffing box

The generous sized stuffing box is highly accessible for easy adjustment and maintenance, especially if advantage is taken of the back pull-out feature. It will accommodate any packing and virtually all single or double mechanical seals in U.S. or metric sizes.

4 Shafts & seals

Shafts are one piece, extra heavy designed to minimize deflections. Replaceable hook-type sleeves, keyed to the shaft, are available in hardened 410 stainless steel, type 316 SS or Hastelloy "C" as standards with optional alloys or hard coatings such as Tung-car or ceramic.

5 Bearings

Bearings are sized for a minimum L₁₀ life of over 100,000 hours at maximum load conditions. Oil, oil mist or grease lubrication is available.

6 Power frames

For maximum standardization and minimum inventory cost, all TORUS vortex pumps consisting of 48 models and sizes are mounted on just 3 standard, heavy duty powerframes. The large oil sump and extra large radiating surfaces allow pumping of higher temperature fluids without powerframe cooling and maintains lower bearing temperatures.

7 Casing

The one-piece casing is made in a variety of metallurgies and thickness to handle most fluids with solids up to 8" diameter. The design provides clear passage of any solid the size of the discharge opening. The casing is solidly foot-mounted allowing true back pull-out and protection against overhung piping loads which cause undue shaft and seal deflections.

■ Introduction

Vortex pumps have a recessed impeller out of the path of the solids being pumped. This impeller uses about 15% of the fluid being pumped to create a vortex that adds energy to the pumped fluid. The Torus Vortex pump is designed to efficiently handle A/. large soft solids up to the size of the discharge port; B/. long stringy or fibrous material; C/. delicate, crystalline or other friable solids; D/. slurries or sludges with high gas entrainment; and E/. large soft solids & sludges mixed with varying amounts of abrasive materials.

■ Applications

Waste Treatment

Grit
Raw Sludge
Digested Sludge
Raw Sewage
Rags
Scum
Activated Sludge

Mining & Metallurgical

Mine Water &rainage
Tailings
Mill Scale
Water and Slag
Mill Flotation Circuits
Coal Slurries
Thickener Underflow

Pulp & Paper

Wood Chips
Pulp Rejects
Black Liquor
Lime Slurry
Paper Stock
Aerated Stock
Green Liquor
Dreg Sludges

Chemical & Manufacturing

Crystal Suspensions
Rubber Crumb
Paint Sludge
Plant Sewage & Sludge
Tannery Fleshings
Fibre Slurry
Flocculants

Food Processing & Agriculture

Potatoes in Water
Fish Offal
Bagasse
Liquid Manure
Cherries
Malted Barley
Bones
Vegetable Refuse
Shrimp
Lime Sludge
Chicken Wastes
Corn Cobs

■ Materials

Corrosion Resistant

Cast Iron
316 SS
Alloy 20

Corrosion & Abrasion Resistant

CD4MCu
28% Chrome Iron

Abrasion Resistant

NiHard
Super NiHard
28% Chrome

■ Dimensions

Item	Model	Frame	Disc x Suct x IMPØ	CP	D	E ₁	E ₂	F	G	H	L	U Ø	Keyway	O	V	X	Y	Z	Weight Kg
1	2-7	1	50 x 80 x 180	520	170	120	0	265	16	18	95	27	6.4 x 3.2	361	50	190	95	95	75
2	4-7		100 x 150 x 180	580	170	120	0	290	16	18	125	27	6.4 x 3.2	381	50	210	125	105	89
3	3-8		80 x 100 x 215	565	190	120	0	280	16	18	120	27	6.4 x 3.2	415	50	225	120	100	95
4	4-8		100 x 150 x 215	590	190	120	0	295	16	18	135	27	6.4 x 3.2	420	50	230	135	115	102
5	3-11	2	80 x 100 x 260	770	255	165	95	430	16	22	130	47.6	12.7 x 6.4	535	90	280	130	130	214
6	4-11		100 x 150 x 260	790	255	165	95	440	16	22	140	47.6	12.7 x 6.4	535	90	280	140	130	232
7	2-12		50 x 80 x 315	730	280	180	95	405	16	22	115	47.6	12.7 x 6.4	575	90	295	115	180	236
8	4-12		100 x 150 x 315	795	280	180	95	440	16	22	145	47.6	12.7 x 6.4	590	90	310	145	160	255
9	6-12	3	150 x 200 x 315	860	280	180	95	485	16	22	170	47.6	12.7 x 6.4	600	90	320	170	160	272
10	3-15		80 x 100 x 380	960	370	200	115	590	25	25	115	73	19 x 9.5	720	140	350	115	200	373
11	4-15		100 x 150 x 380	995	370	200	115	605	25	25	140	73	19 x 9.5	730	140	360	140	190	409
12	8-15		200 x 250 x 380	1110	370	200	115	655	25	25	205	73	19 x 9.5	755	140	385	205	190	460
13	3-17		80 x 100 x 440	975	370	225	115	600	25	25	125	73	19 x 9.5	730	140	360	125	225	446
14	4-17		100 x 150 x 440	1000	370	225	115	610	25	25	140	73	19 x 9.5	740	140	370	140	215	457
15	6-17		150 x 200 x 440	1105	370	225	115	648	25	25	206	73	19 x 9.5	778	140	410	206	215	545

Dimensions are in mm unless otherwise stated.

