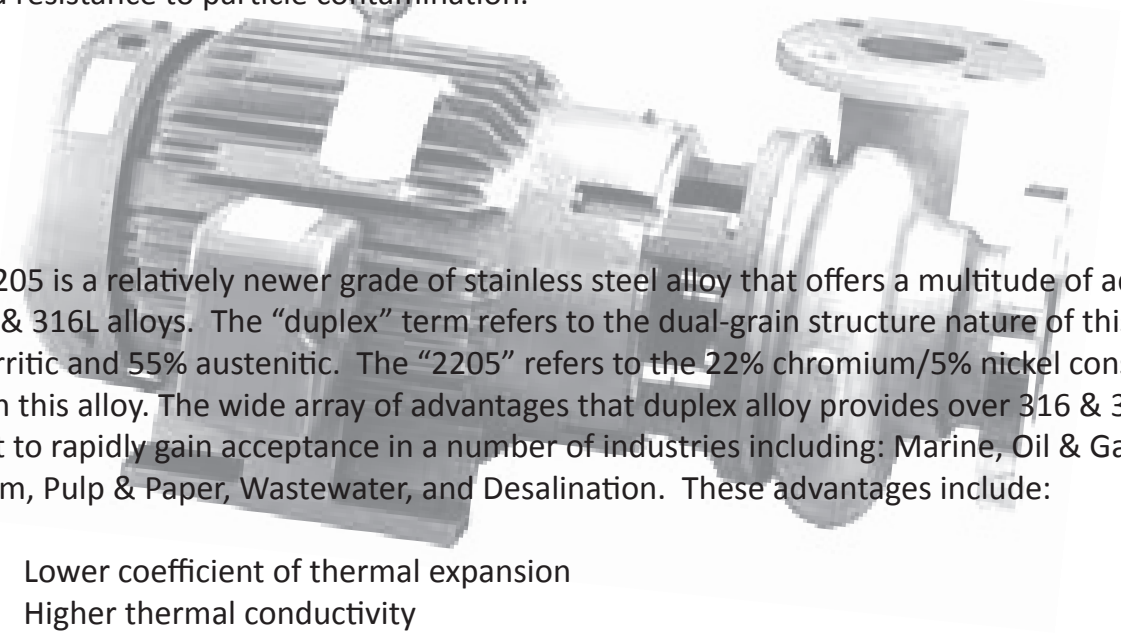
HAIGHT® PUMPS
DIVISION OF: BAKER MANUFACTURING COMPANY, LLC

Haight is pleased to be offering Duplex 2205 Alloy Pumps

Haight's HK, HR, and HZ series pumps are available from stock in Duplex 2205, in addition to 316 Stainless Steel and Nickel-Aluminum bronze. Duplex 2205 is highly recommended for seawater reverse osmosis, and desalination applications , in addition to other applications that require superior corrosion resistance, superior resistance to the effects of cavitation, or enhanced resistance to particle contamination.



Duplex 2205 is a relatively newer grade of stainless steel alloy that offers a multitude of advantages over 316 & 316L alloys. The "duplex" term refers to the dual-grain structure nature of this alloy - it is 45% ferritic and 55% austenitic. The "2205" refers to the 22% chromium/5% nickel constituents present in this alloy. The wide array of advantages that duplex alloy provides over 316 & 316L alloys enables it to rapidly gain acceptance in a number of industries including: Marine, Oil & Gas, PetroChem, Pulp & Paper, Wastewater, and Desalination. These advantages include:

- Lower coefficient of thermal expansion
- Higher thermal conductivity
- Resistance to chloride stress-cracking
- Superior resistance to pitting & crevice corrosion
- Superior erosion fatigue properties
- High yield strength; twice that of austenitic stainless steels

Additional Key Points:

- Duplex 2205 is 45% ferritic - as such it will be far more magnetic than any 304 or 316 alloy that you will encounter.

- The term "Super Duplex" refers to duplex alloys such as UR52N+ that incorporate copper into their chemistry. The addition of copper provides dramatically improved corrosion resistance to hot chlorides and strong reducing acids, such as H_2SO_4. The duplex 2205 alloy used by Haight may contain a small amount of copper but can ***NOT*** be referred to as a "Super Duplex."

For more information contact:
Haight Pumps 133 Enterprise Street • Evansville, WI 53536 Phone: 800-871-9250 • Fax: 608-882-3777
Website: haightpump.com

Compatibilities Rating

A - Excellent B - Good C - Fair/Component life will be limited
NR - Not Recommended

Fluid Media	Metals			Elastomers				Seal Faces		
	Duplex 2205	Cast CF8M S.S	Bronze CDA958	Buna-N	Viton	EPDM	Teflon	Carbon	Ceramic	Silicon Carbide
Acetic Acid <30%	A	A	A	NR	B	A	A	A	A	A
Acetic Acid >30% to 70 F	NR	A	A	NR	B	B	A	A	A	A
Acetone	A	A	A	NR	A	A	A	A	A	A
Aluminum Sulphate <10%	A	B	A	A	A	A	A	A	A	A
Aluminum Sulphate >10%	B	NR	A	A	A	A	A	A	A	A
Ammonia, Liquid	NR	NR	-	NR	NR	A	A	A	A	A
Ammonium Chloride <10%	B	B	NR	A	A	A	A	A	A	A
Ammonium Hydroxide <30%	A	A	NR	A	C	A	A	A	A	B
Amyl Acetate	A	A	-	A	NR	C	A	A	NR	A
Amyl Alcohol to 200 F	A	A	-	B	B	A	A	A	A	A
Amyl Chloride to 150 F	A	A	A	-	A	NR	A	A		A
Anti Freeze to 140 F	A	A	A	C	C	A	A	A	A	A
Barium Chloride <5%	AB	B	A	A	A	A	A	A	A	A
Barium Hydroxide to 160 F	A	AB	AB	A	A	A	A	A	A	A
Beer	A	AB	A	A	A	A	A	A	A	A
Beet Sugar Liquids	A	A	A	A	A	A	A	A	A	A
Benzene	A	A	A	A	A	A	A	A	A	A
Bisphenol-A	A	A	-	B	A	NR	A	A	A	A
Bleach-Sodium Hypochlorite <20%	B	B	B	NR	A	A	A	NR	A	B
Bromine	NR	NR	-	NR	A	NR	NR	NR	A	B
Bunker C Fuel Oil	A	A	-	A	A	-	A	A	NR	A
Butane Liquid	A	A	A	A	A	NR	A	A	A	A
Calcium Bisulfate	B	B	-	B	B	A	A	A	A	B
Calcium Chlorate	B	B	-	C	C	A	A	A	A	A
Chlorine Water	B	B	NR	NR	A	NR	A	A	A	A
Citric Acid	A	AB	NR	A	A	A	A	A	A	A
Corn Oil	A	A	-	A	A	C	A	A	A	A
Cutting Oil	A	A	A	A	A	NR	A	A	A	A
De-ionized Water	A	A	-	B	B	A	A	A	A	A
Diesel Fuel	A	A	A	A	A	NR	A	A	A	A
Dimethyl Ether <50%	B	B	-	A	B	B	A	A	A	A
Dimethyl Formahyde	A	A	-	B	NR	A	A	A	A	A
Esters	A	A	A	NR	A	A	A	A	A	A
Ethers to 70 F	A	A	A	NR	A	C	A	A	-	A
Ethyl Alcohol	A	A	-	C	C	A	A	A	A	A
Ethyl Chloride to 140 F	A		-	A	A	C	A	A	A	A
Ethyl Mercaptin to 70 F	A	B	-	NR	A	-	A	A	A	A
Ethylene Chlorohydrin	AB	AB	-	NR	A	B	NR	-	-	-
Ethylene Dichloride	AB	-	-	NR	A	C	A	A	A	A
Ethylene Glycol to 140 F	A	A	A	A	A	A	A	A	A	A
Ferric Chloride	NR	NR	NR	A	A	A	A	A	A	B
Formic Acid	A	NR	AB- 70F	-	NR	A	A	A	A	B
Fruit Juice	A	A	-	A	A	A	A	A	-	A
Furfural	A	A*	A	NR	NR	A	A	A	C	A
Gasoline	A	A	A	A	A	NR	A	A	A	A

The above chart is a guide to the materials used to fabricate the internal “wetted” components in the centrifugal pumps offered by Haight Pumps. The information in this chart is based upon careful examination of available published information and is believed to be accurate. However, since the resistance of metals, polymers, and elastomers can be affected by concentration, temperature, and other factors; this information should be considered as a general guide rather than an unqualified guarantee. The end user of the pump must ultimately decide the suitability of the pump materials with their own system.

Compatibilities Rating

A - Excellent B - Good C - Fair/Component life will be limited
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Fluid Media	Metals			Elastomers				Seal Faces		
	Duplex 2205	Cast CF8M S.S	Bronze CDA958	Buna-N	Viton	EPDM	Teflon	Carbon	Ceramic	Silicon Carbide
Glucose	A	A	A	A	A	A	A	A	A	A
Glycerine	A	A	A	A	A	A	A	A	A	A
Hexane	A	A	-	A	A	NR	A	A	A	A
Hydraulic Oil	A	A	A	A	A	NR	A	A	A	A
Hydrochloric Acid <15%	NR	NR	AB	NR	A	NR	A	A	A	NR
Hydrocyanic Acid <15%	A	A	NR	B	A	A	A	A	A	B
Hydrogen Peroxide <30%	A	A	NR	B	A	A	A	A	A	A
Hydrogen Peroxide <85%	A	AB	NR	NR	A	C	A	NR	A	A
Iodine	B	B	NR	B	B	A	A	A	A	A
Isobutane	A	A	A*	A	A	NR	A	A	A	A
Isobutyl Alcohol	A	A	-	B	A	A	A	A	A	A
Isopropyl Acetate	A	A	-	NR	NR	B	A	A	A	A
Isopropyl Ether	A	A	-	B	NR	NR	A	A	A	A
Jet Fuel	A	A	-	B	A	NR	A	A	A	A
Kerosene	A	A	-	A	A	NR	A	A	A	A
Ketones	A	A	B	NR	NR	A	A	A	A	A
Lacquer Thinner	A	A	A	NR	NR	NR	A	A		A
Linseed Oil	A	A	-	A	A	C	A	A	A	A
Liquid Petroleum Gas	A	A	A	A	A	NR	A	A	A	A
Magnesium Chloride <33% to 70 F	A	A	A	A	A	A	A	A	A	A
Magnesium Hydroxide <10%	AB	AB	A	B	A	A	A	A	A	A
Magnesium Sulphate <40%	A	B	A	A	A	A	A	A	A	A
Methanol	A	A	-	NR	NR	A	A	A	A	A
Methyl Ethyl Ketone (MEK)	A	A	-	NR	NR	A	A	A	A	A
Molasses	A	A	A	A	A	-	A	A	A	A
Naptha, Petroleum	A	A	A	B	A	NR	A	A	NR	A
Nitric Acid <50%	A	A	NR	NR	A	B		A	A	NR
Nitric Acid >50%	-	B	NR	NR	C	NR	A	NR	NR	A
Oleic Acid	A	A	A*	C	B	NR	A	A	A	A
Ozone <12%	A	A	-	NR	A	A	A	NR	NR	A
Palm Oil	A	A	-	A	A	NR	A	A	A	A
Palmitic Acid	A	B	B	A	A	B	A	A	A	A
Potassium Chloride	A	B	A	A	A	A	A	A	A	B
Potassium Hydroxide	A	B	AB	C	C	A	A	NR	A	B
Potassium Nitrate	A	-	B	A	A	A	A	A	A	A
Propane	A	A	A	A	A	NR	A	A	A	A
Propylene Glycol	A	A	-	C	C	A	A	A	A	A
Rapseed Oil	A	A	-	B	A	A	A	A	A	A
Sea Water	A	B	A	A	A	A	A	A	A	A
Sodium Chloride	A	AB	A	A	A	A	A	NR	A	A
Sodium Hydroxide <50%	A	AB	A	B	B	A	A	A	-	NR
Sulphuric Acid <2%	A	B	A	C	C	A	A	A	A	NR
Toluene	A	A	A	NR	A	NR	A	A	A	A
Xylene	A	B	A	NR	A	NR	A	A	A	A
Zinc Chloride	A	B	NR	A	A	A	A	A	A	B

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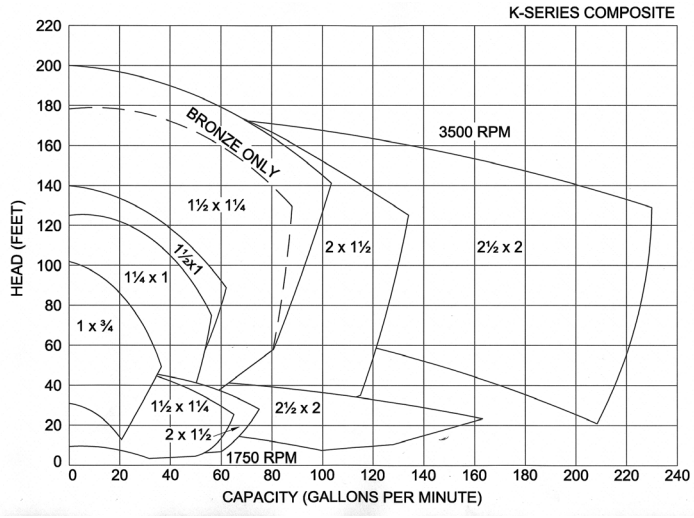
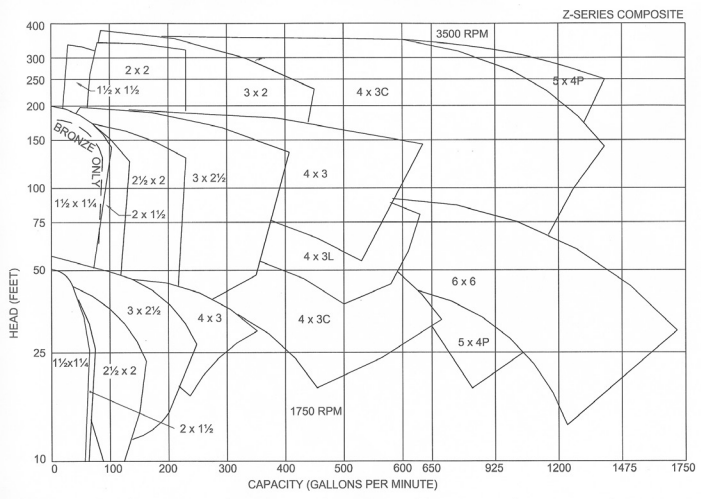
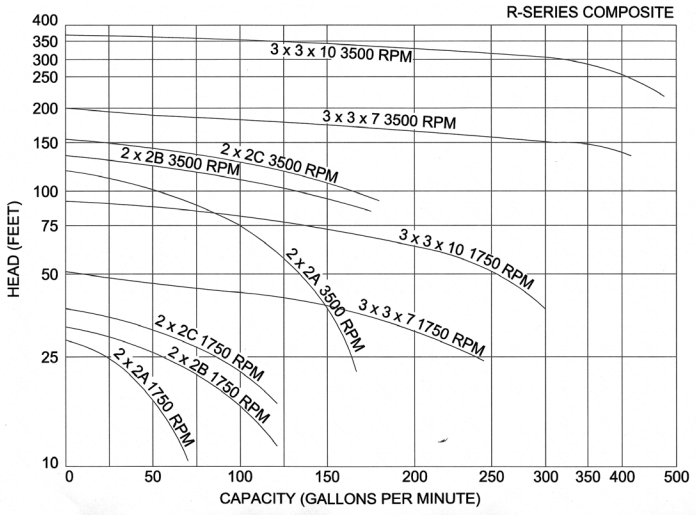
Universal Curves



HK Series Pump and Composite Curve

HZ Series Pump and Composite Curve





HR Series Pump and Composite Curve

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