

Chemical Pumps According to ISO 2858 / 5199

### XIP Series (I-IV)

### Chemical Pumps According to ISO 2858/5199 Standards

XTF Corporation is a centrifugal pump manufacturer located in Greensboro, North Carolina, U.S.A.. Being one of the leading forces in the global industrial pump marketplace, we provide in-depth expertise in pre-engineered, engineered, and special purpose pumping solutions and systems.

The XTF™ I Series pumps provide superior hydraulic performance for chemical applications, including:

- Chemical and petrochemical processing

- Food and beverage processing

- Hydrocarbon processing

- Sea water and wastewater treatment

- Polymers / solvents

- Pulp and paper

- Primary metals

- Pharmaceutical

- Acid transfer

- Corrosive services

#### Range of Coverage:

- Brine

- *Maximum capacity:* 4,750gpm (1,079m<sup>3</sup>/h)

- Maximum head: 492ft (150m)

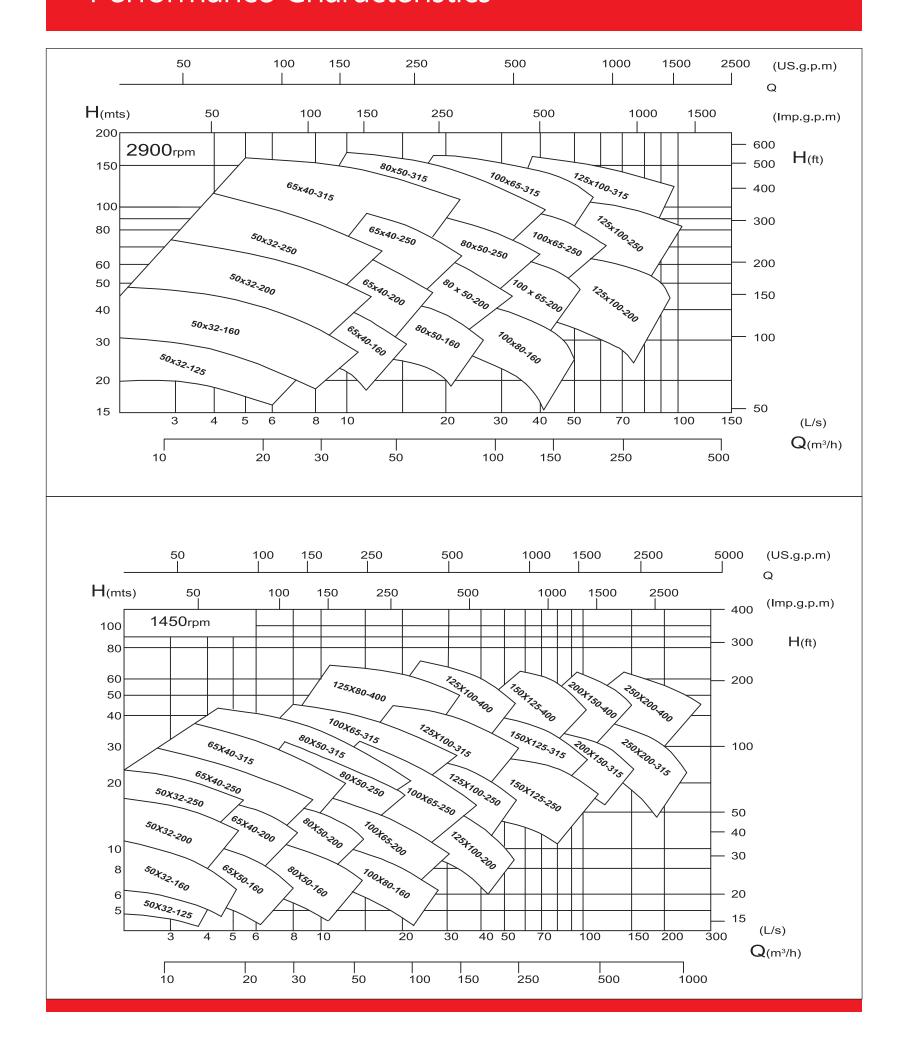
- Temperature: -40°F to +356°F (-40°C to +180°C)

- Maximum Pressure: 235psi (1,620kPa)

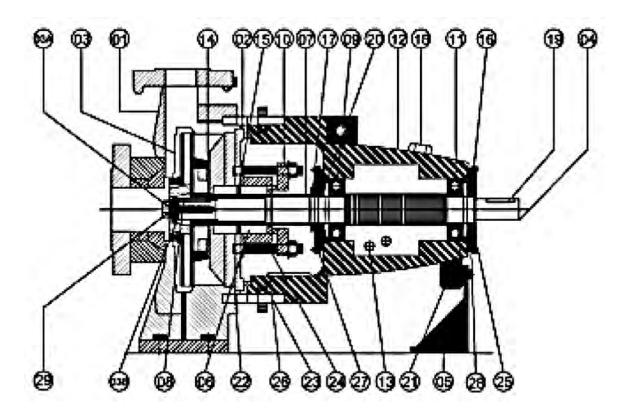
#### Technical Specifications, Features and Benefits:

- Pump dimensions of XIP series conform to ISO 2858 and ISO 5199 design criteria.
- Easy interchangeability with other ISO 2858 compliant pumps.
- Single-stage pumps with overhung impellers, volute casings, axial suction, and radial discharge.
- Available in closed impeller construction for higher efficiency.
- Wide range of models and MOCs available covering the maximum duty conditions.
- Back pull-out design allows removal of rotating element without removing casing, piping, or motor.
- Stuffing box dimension permits the interchangeability between packing and standard mechanical seals (the standard construction uses mechanical seals according to DIN but most mechanical seals are suitable for construction).
- Robust shaft and bearing designs minimize shaft deflection and extend mechanical seal and bearing life.
- Case iron bearing housing is designed for safety, strength, interchangeability, and retrofit capability.

### Performance Characteristics

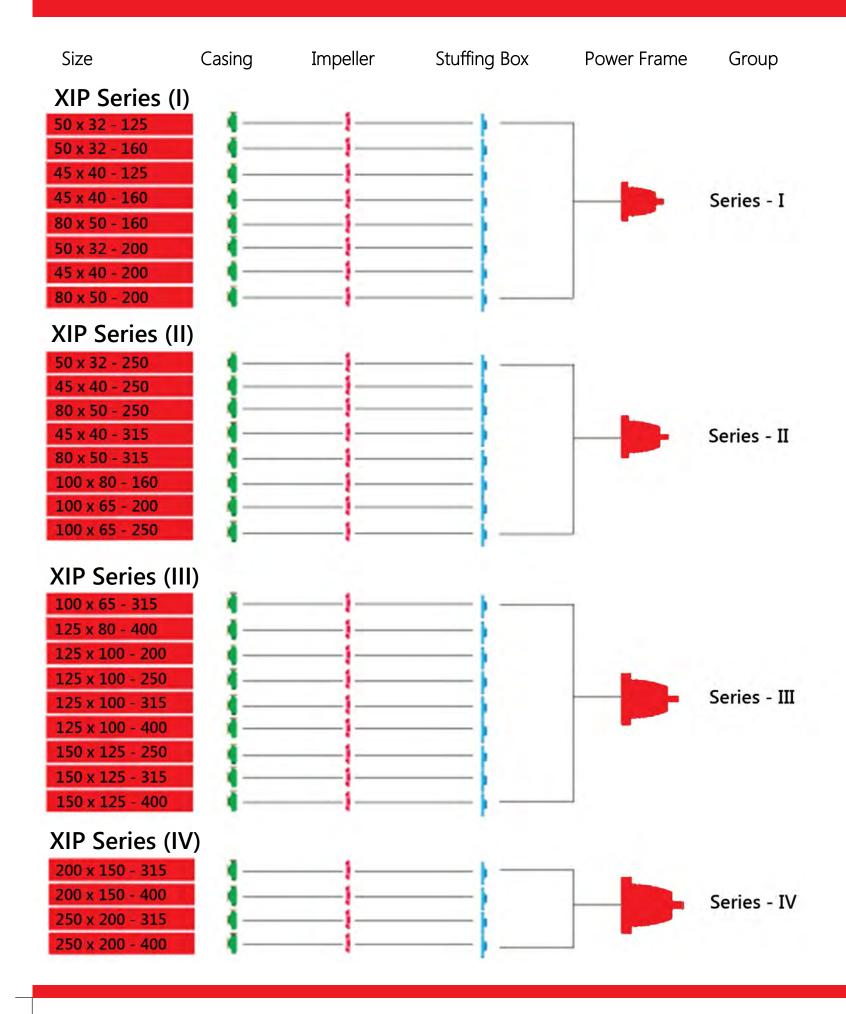


# Cross Sectional Drawing

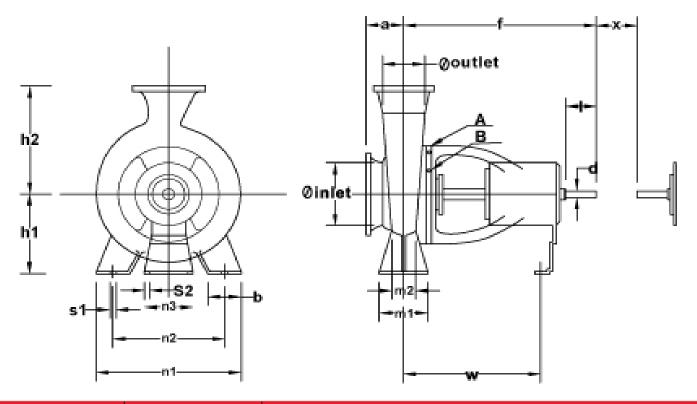


Part No.	Description	Standard Material												
Part NO.	Description	CS	CF8M	CF3M	CD4MCu	A-20	HC	HB						
01	Casing	CS	CF8M	CF3M	CD4MCu	A-20	HC	HB						
02	Stuffing Box / Back Plate	CS	CF8M	CF3M	CD4MCu	A-20	HC	HB						
03	Impeller	CS	CF8M	CF3M	CD4MCu	A-20	HC	HB						
03A	Impeller Nut	CS	CS CF8M CF3M CD4MCu A-20 HC											
03B	Nut Gasket	PTFE												
04	Shaft	EN-19 SS-316												
05	Support Foot	SGI												
06	Stuffing Box Packing	TIWA / GRAFOIL / PTFE												
07	Shaft Sleeve	SS-316	SS-316 CF8M CF3M CD4MCu A-20 HC											
08	Impeller Key	SS-316												
09	Bearing (Inboard)	Steel												
10	Gland Pusher	CS	CF8M	CF3M	CD4MCu	A-20	HC	HB						
11	Bearing (Outboard)	Steel												
12	Bearing Frame	CI												
13	Bearing Oil Drain Plug	Steel												
14	Impeller Seal Ring	PTFE												
15	Lantern Ring	Glass Filled PTFE												
16	Bearing Cover (Outboard)	CI												
17	Deflector	SS-304												
18	Oil Breather	Steel												
19	Key Coupling Side	SS-316												
20	Oil Seal (Inboard)	Buna Rubber												
21	Oil Seal (Outboard)	Buna Rubber												
22	Gasket Casing to Stuffing Box Cover	PTFE												
23	Stud Nut Casing	Steel												
24	Bolt - SBCvr to Gland	Steel												
25	Bolt-Bearing Cover to Bearing Frame	Steel												
26	Drip Tray	SS-304												
27	Bearing Cover (Inboard)	CI												
28	Oil Paper Gasket	Paper Material												
29	O-ring for Impeller Bolt	Viton												

# Modular Interchangeability



# Dimensions



Size Designation Nominal Duty Point						int	Dimensions (mm)															
Suction	Discharge	Impeller	1450rpm		2900rpm		Pump			Support					Clearance Holes for Bolts							
			Q (m³/h)	H (m)	<b>Q</b> (m³/h)	H (m)	a	f	h1	h2	b	m1	m2	n1	n2	n3	w	<b>S1</b>	<b>S</b> 2	d	1	x
50	32	125		5		20	80	385	112	140	50	100	70	190	140							
50	32	160	6.3	8		32	-	303	132	160		100		240	190 100	285			24	50		
50	32	200		13	1 -5	50 80	100	500	160	180	65	125	OE			100						
50	32	250		20					180	225				320			370			32	80	
65	50	125		5		20	80	205	112	140				210	160		205					
65	50	160	10.5	8	25	32	385	132	160	50	100	70	240	190		285	.		24	50		
65	40	200	12.5	13	80		100		160	180				265	212							
65	40	250		20		105	500	180	225	65	125	95	320	250		370	M12		32	80	100	
65 80	40 65	315 125		32 5		125	125		200 132	250 160				345 240	280		285	M12		$\vdash$		
80	65	160		8	-	20 32	100	385	132	180	50	100	70	240	190					24	50	
80	50	200	25	13	50	50			160	200	30			265	212					24		
80	50	250	23	20	30	80			180	225				320	250					$\vdash$		
80	50	315	50	32	1	125	500	225	280	-			345	280		370			32	80		
100	80	125		5		20		385 -	-	180	65	125	95				285		M12	24	50	
100	80	160		8	32 100 100 50		160	200	"	123		280	212		203			- 1	50			
100	65	200		13				500		225				320	250		270			32	80	
100	65	250		20	1	80	405		200	250				360	280	110	370					
100	65	315	1	32	1	125	125	500	225	280	1			400	315					40	110	
125	80	400	80	50	-	-	-	530	280	355	80	1.00	120	435	355		-	1.41.6		42	110	
125	100	200		13		50	125	500	200	200	80	160	120	360	280			M16		32	80	
125	100	250	1004	20	2004	80			225	280				400	315							140
125	100	315	125 32 250	250	125	140		250	315				400	212	)							
125	100	400		50 - 20	280		100	200	150	500	400		370	M20								
150	125	250						250	355	80	160	120	400	315	]   5	3/0	M16		42			
150	125	315	200		52	-	140		280				1 1			7					110	
150	125	400		50					315	400				500	400						110	
200	150	250	3154	20					280	375	100	200	150					M20				
200	150	315	400	32	-	-	160	670	315	400				550	450		500		M16	48		180
200	150	400	400	50				570	213	450				550	450		300		IVITO	70		

### Material Cross Reference Chart

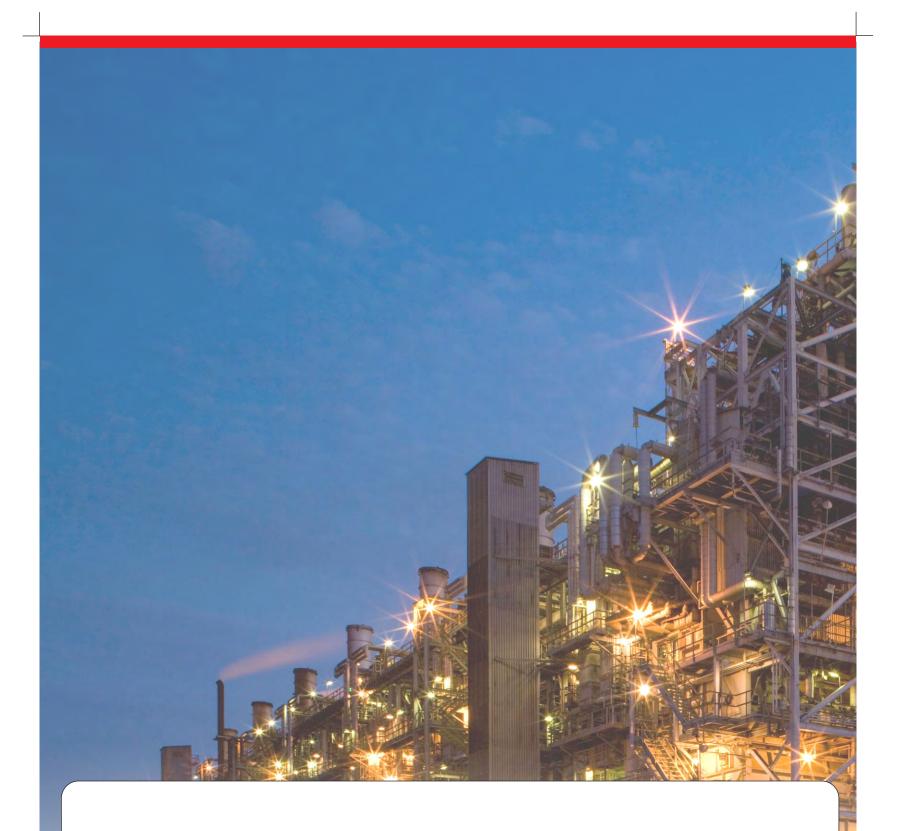
Material	ASTM Casting Grade
Cast Steel	WCB
SS-304	CF8
SS-316	CF8M
SS-316L	CF3M
CD4MCu	CD4MCu
Alloy - 20	CN7M
Carpenter 20	CK-20
Duplex SS	Grade 4A,5A,6A
Hastelloy B	N12MV
Hastelloy C	CW12MW
Nickel (100%)	CZ-100
MONEL	M-35
Ni-Hard	Ni-Hard(Ni-Resistance)
Cast Titanium	B367 Grade C2 / C3

#### **GENERAL APPLICATION INSTALLATION LIST INDUSTRY** Chemical Sulphuric Acid Sodium Hydroxide Hydrochloric Acid Acetic Acid Ammonium Chloride Petrochemical Benzene Toluene Ammonia Methanol Pulp & Paper **Shower Water** White Water Chlorine Dioxide Brewing Sprage Water Hot / Cold Wort Chilled Water Reer **Primary Metal** Copper Cyanide Sodium Cyanide Chromic Acid General Condensate

Deionized Water Shower Water

#### **Applications of Exotic Alloy Pumps**

- 1. Duplex SS (Grade4A,5A,6A): All Sea Water Applications having a good corrosion and abrasion resistance.
- 2. Alloy 20: All applications of Sulphuric Acid this metal is a Complete winner having wide presence in fields of Paper and Pulp(Alum Transfer), Paint industry, Speciality Chemicals, Battery manufacturing, Pesticides and Fertilisers.
- 3. Hastalloy B and C: For all highly corrosive applications where there are mixtures of liquids at elevated temperatures. Major Industry it targets is Agro Chemicals.
- 4. Monel 400: majorly all Applications of Highly corrosive, erosive and abrasive liquids. It works best with various acids, halogens, other corrosive mixtures. It contains 65% of Nickel for tackling majority of aggressive chemicals.
- 5. 100% Nickel: for Caustic Transfer Applications at elevated temperatures. Major Industry- Caustic Soda Plants.
- 6. CD4MCu and Ni- Hard: These materials are used where the liquid is Highly abrasive in nature. With high amount Chrome content the above Properties can be achieved. Major industries would be Mineral Processing for CD4MCu and Ni Hard is widely used for handling Ash Handling Slurries in Blast Furnace Operations of Hot Rolling Mills in Steel Plants.





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<sup>\*</sup> Dimensions and technical details are subject to change without prior notice.