

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev		Date: 7/21/2026
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client	Vendor	Page 1 of 7
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00	00	
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps			

Data Sheet for Hydro cyclone
centrifugal feed pumps

00	7/21/2026	Issued For Review				
Rev.	Date	Description	Prepared By	Checked By	Approved By	Authorized By

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps	00
		Date: 7/21/2026
		Page 2 of 7

Tabulation of Revised Page

Sheet	Revisions							Sheet	Revisions						
	00	01	02	03	04	05			00	01	02	03	04	05	
1	x							38							
2	x							39							
3	x							40							
4	x							41							
5	x							42							
6	x							43							
7	x							44							
8								45							
9								46							
10								47							
11								48							
12								49							
13								50							
14								51							
15								52							
16								53							
17								54							
18								55							
19								56							
20								57							
21								58							
22								59							
23								60							
24								61							
25								62							
26								63							
27								64							
28								65							
29								66							
30								67							
31								68							
32								69							
33								70							
34								71							
35								72							
36								73							
37								74							

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev	Date: 7/21/2026
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client	Vendor
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00	00
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps		Page 3 of 7

Table of Contents

1. HYDRO CYCLONE CENTRIFUGAL FEED PUMPS	4
---	---

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev	Date: 7/21/2026
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client	Vendor
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00	00
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps		Page 4 of 7

2. HYDRO CYCLONE CENTRIFUGAL FEED PUMPS

	Description	Units	Value
General data			
1	Quantity	#	4 Operational & 4 Standby
2	Tag No. / Location (indoors/ outdoors)	-	3-32-1501-01 ~04/Indoor 4-32-1501-01 ~04/Indoor
3	Application Description	-	Hydro cyclone centrifugal feed pumps
Process / Operating Conditions			
Material Processed			
4	Ore Type	-	Copper ore
5	Fluid Type	-	Slurry
6	Ore specific gravity	t/m ³	2.8
7	Feed top size (F100)	micron	150
8	Feed F80	micron	90
9	Feed slurry temp	°C	5-60
Operating conditions			
10	Service Type	-	Continuous
11	Configuration	-	horizontal
12	Duty (from-to)	-	PB 3-33-3210-06 to CC3-33-2710-01~04
13	solids feed rate per pump (design)	dtph	5417
14	solid feed rate per pump (nominal)	dtph	4694.74
15	Solid's content	%(m/m)	55
16	slurry density	t/m ³	1.55
17	Solid density	t/m ³	2.8
18	slurry viscosity	Pa.s	0.0024857 (WFL)
19	Slurry flowrate (design/nominal)	m ³ /h	6366.73/ 5517.84
20	Gland seal water (Capacity /	Lit/s @	VTs

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev		Date: 7/21/2026
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client	Vendor	Page 5 of 7
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00	00	
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps			

	Description	Units	Value
	Pressure)	bar	
21	Slurry PH range	-	11-13
22	Feed slurry temperature	°C	5 to 60
23	Froth factor	-	NA
24	Discharge pressure	M slurry	53.31
25	Total Dynamic Head	M slurry	52.28
26	Time operation per cycle	min/Cycle	-
27	Vapor Pressure	KPa	0.4323
28	Min Discharge Pressure (Empty Press)	Bar	VTs
29	NPSH required (Maximum)	m	VTs
30	NPSH Available	m H2O	12.33
31	Suction head (at 60% and 80% levels)	m	WFL
32	Hydraulic power	KW	1471 (VTC)
33	Installed Power	kW	2200 (VTC)
34	Efficiency at the design point	%	VTs
Mechanical Information			
Technical specs			
35	Manufacturer	-	According to approved vendor list
36	Model	-	VTs
37	Type	-	Slurry Horizontal Centrifugal Pump
38	Design pump operating speed	rpm	VTs
39	Max pump operating speed	rpm	VTs
40	Inlet diameter	mm	DN 600 (VTC)
41	Discharge diameter	mm	DN 500 (VTC) (Note 6)
42	Flange specification	-	ASME B16.5 (VTC)

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev	Date: 7/21/2026
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client	Vendor
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00	00
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps		
			Page 6 of 7

	Description	Units	Value
43	Impeller diameter	mm	VTs
44	Number of impeller vanes	#	VTs
45	Sealing arrangement	-	Gland packing in normal execution
Materials of construction/wear protection			
46	Casing	-	Ductile iron + fully rubber lining (VTC)
47	Impeller	-	Ductile iron + fully rubber lining (VTC)
48	Liner	-	Polyurethane or similar (VTC)
49	Shaft	-	ASTM A 276-GR. 316L (VTC)
50	Wear ring	-	VTs
Drive specifications			
51	Drive type	-	Electromotor
52	Power supply	-	3 Phase, 400±10% V , 50±5% Hz
53	Motor speed	RPM	1440@50HZ (VTC)
54	Insulation Grade	-	F
55	Temp. Class:	-	B
56	IEC Motor Protection	-	IP55
Power Transmission			
57	Transmission system	-	Pully and belt
58	Transmitted power	kw	VTs
59	Maximum driver Pully Diameter	mm	VTs
60	Drive Ratio	-	VTs
61	Driver speed	rpm	VTs
Bearing details			
62	Motor end bearing type	-	VTs

	Client No: 28C3-D-4IN-DSH-032-1501-04-ME-0148	Rev	Date: 7/21/2026
Class: FA	Document No: 12002-D-ME-DSH-303-GRD-148	Client	Vendor
	Library Code: 303-E03-1501-00-ME-DSH-148-00	00	00
	Document Title: Data Sheet for Hydro cyclone centrifugal feed pumps		
			Page 7 of 7

	Description	Units	Value
63	Pump end bearing type	-	VTs
64	Lubrication type	-	VTs
Piping details			
65	Static head (Suction/discharge)	m	3/25 (WFL)
66	Total pipe length (Suction/discharge)	m	3/84 (WFL)
67	90 deg bends (Suction/discharge)	Qty	0/6 (WFL)
68	45 deg bends (Suction/discharge)	Qty	0/2 (WFL)
69	T pieces (Suction/discharge)	Qty	0/2 (WFL)
Masses			
70	Refer to Drawing Number	#	VTs
71	Empty mass (complete HC manifold)	kg	VTs
72	Operating mass (complete HC manifold)	kg	VTs
73	Pump dimension (L W H)	m	VTs

Notes:

1. Abbreviations:

- VTs: Vendor to specify
- VTC: Vendor to Confirm
- WFL: Will be Final Later

2. VTs, VTC, and blank items should be completed by the vendor.

3. For site condition, please see the Doc.#:12002-D-PR-DOC-303-GNL-001

4. For the LV & MV motors data sheet please refer to 12002-D-EL-DSH-303-GNL-038

5. For Technical Specification for MV & LV Motors please refer to 12002-D-EL-SPC-303-GNL-016

6. for the 4 sets of pumps, the pump's casing shall be symmetrical with respect to the longitudinal axis of the pumps.