



TECHNICAL CATALOGUE



# AD-SC SERIES

MEDIUM & LIGHT DUTY SLURRY PUMP

FLUGO reserves the right to change the technical data and dimensions in order to update improves its product without prior notice.

[www.flugopumps.com](http://www.flugopumps.com)

Materials that we could cast are mainly focused on abrasion resistance and corrosion resistance iron and steel. High chrome white iron is one of the main material applied on pump parts. Materials that we could cast are not limited to the lists. Please inquire for the material that not lists in the table

	Material	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Other
M05	KmTbCr26	2.3~3.3	≤1.0	0.5~1.5	≤0.06	≤0.06	23~30	≤2.5	≤3.0	≤1.2	Trace
M07	KmTbCr15Mo3	2.3~3.3	≤1.0	0.5~1.5	≤0.06	≤0.06	14~18	≤2.5	≤3.0	≤1.2	Trace
M10	Cr20Mo2Cu	2.6~2.9	≤1.0	1.0	≤0.06	≤0.06	18~21	≤1.0	1.4~2.0	0.8~1.2	Trace
M49		1.3~1.8	1.0~2.0	0.5~1.5	≤0.06	≤0.06	23~30	≤2.5	≤3.0	≤1.8	Trace
M33		1.8~2.3	1.0~2.0	0.5~1.5	≤0.06	≤0.06	30~40	≤2.5	≤3.0	≤1.8	Trace
M12		4.0~5.5	≤1.0	0.5~1.5	≤0.06	≤0.06	30~40	≤2.5	≤4.0	≤1.2	Trace
M61		4.0~5.5	≤1.0	0.5~1.5	≤0.06	≤0.06	30~40	≤2.5	≤4.0	≤1.2	Trace

Material Code	Hardness (HRC)	Impact Toughness (J/cm <sup>2</sup> )	Application	Standards
M05	≥58	5~7	Alloy M05 is particularly suited for greater impact load and fair corrosion resistance, and it is used when pH range is 5-12.	ASTM A532 CL III-A
M07	≥58	5~7	Alloy M07 has lower wear resistance but higher impact resistance than Alloy M05. It is used when pH range is 5-12.	ASTM A532 CL III-A
M10	≥58	5~7	Known as 1821 white iron, widely used in mining industry as most efficient and cost effective option.	AS 2027-2007
M49	35~45	5~7	Alloy M49 has certain erosion resistance and better corrosion and abrasion resistance, which is used in mild acid application with pH =4, particularly suitable for Flu Gas Desulphurization (FGD) applications.	
M33	30~40	5~7	Alloy M33 excels in erosion resistance and corrosion resistance, which can be used in oxidizing medium with pH =1, such as delivery of phosphogypsum and nitric acid, sulfuric acid and phosphoric acid, etc.	
M12	60~67	2~5	Alloy M12 has better wear resistance than Alloy M05, but it is not best suited for corrosion application. It can be selected when pH ranges of 6-14, where Alloy M05 provides fair wear life.	
M61	60~67	5~6	Alloy M61 has better toughness compared to Alloy M12. Alloy M61 can be further hardened by adjusting heat treatment, thereby improve its wear resistance. It is suitable for high abrasive slurry with fine particles with pH ranges of 6-14.	

## Material Standards

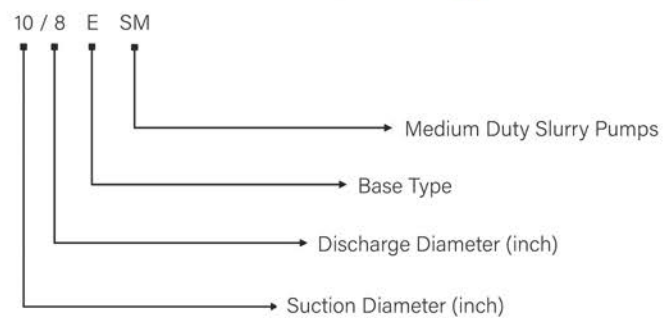
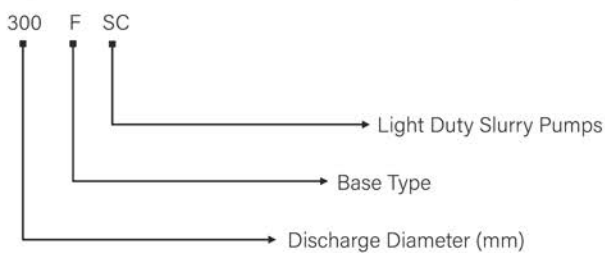
Material	ASTM Standards	ISO Standards	Australia Standards	Chinese Standards	BS EN Standards
White Iron	ASTM A532	ISO21988	AS 2027-2007		
	ASTM A532 CL III-A				
	ASTM A532 CL II-B				
Austenitic Manganese Casting Steel				GB/T 5680-1998	BS EN 10349-2009 Steel Castings
Ductile Iron		ISO 1083-2004		GB 1348-88	BS EN 1563-1997
Grey Cast Iron		ISO 185:2005	AS 1830-2007	GB 9439-1998	BS 1452-1990

## AD-SC | Medium & Light Duty Slurry Pump

Pump type SM is the standard medium duty slurry pump which designed for the continuous pumping of highly abrasive, high density slurries with minimal maintenance requirements. Pump type SC is the standard light duty slurry pump which designed for the continuous pumping of light abrasive, light density slurries with minimal maintenance requirements. They maintain high efficiencies over the wear life of its components and typically used in process plant transfer, wet waste processes, recycling-washing plants, sand plant duties, heavy minerals processing, mineral recovery and chemical process plant



## AD-SC | Pump Designation



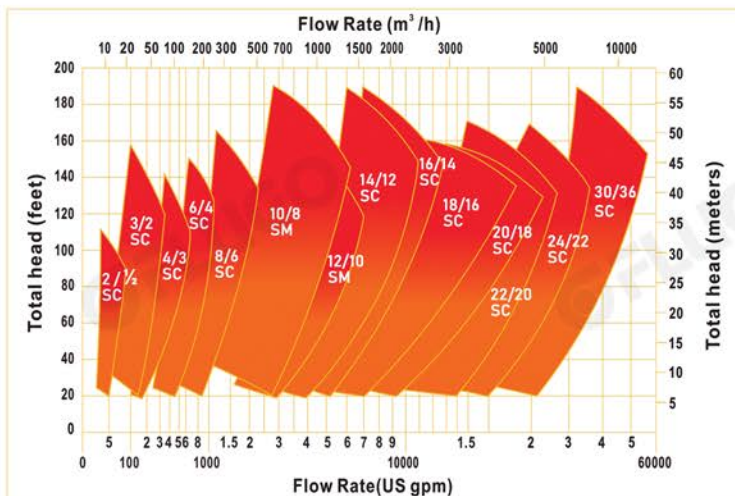
## AD-SC | Pump Quick Selection Chart

### Pump Range

Discharge Size : 20 to 650 mm

Capacity : 3 to 12000 m<sup>3</sup>/h

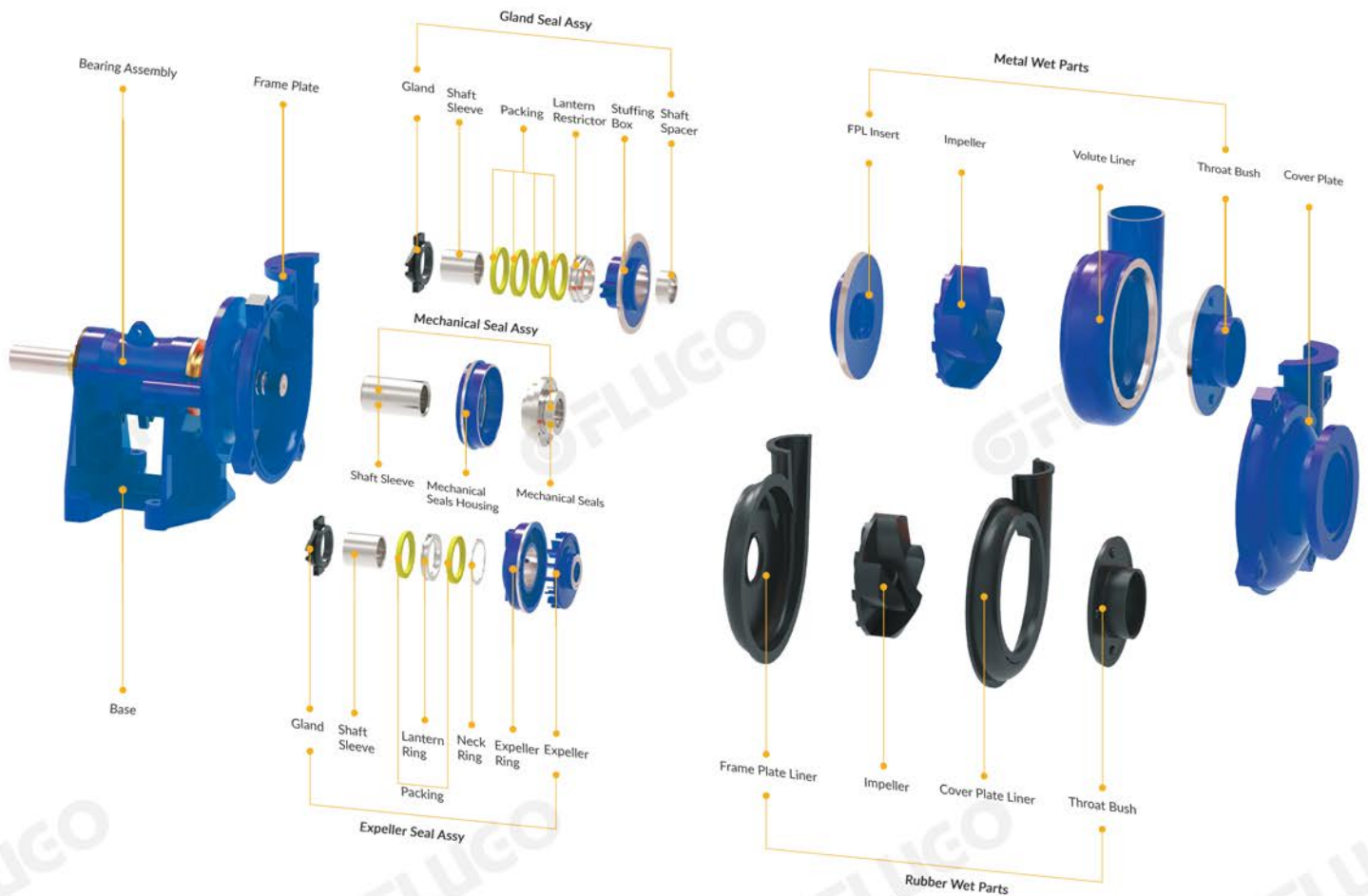
Head : 4 to 60 m



## Typical Application

- Mill Discharge
- Coarse Sand
- Tailings
- Mineral Concentration
- Heavy Media
- Coal Washing
- FGD
- Process Chemical
- Bottom/Fly Ash
- Metal Smelting
- Flotation
- Waste Water





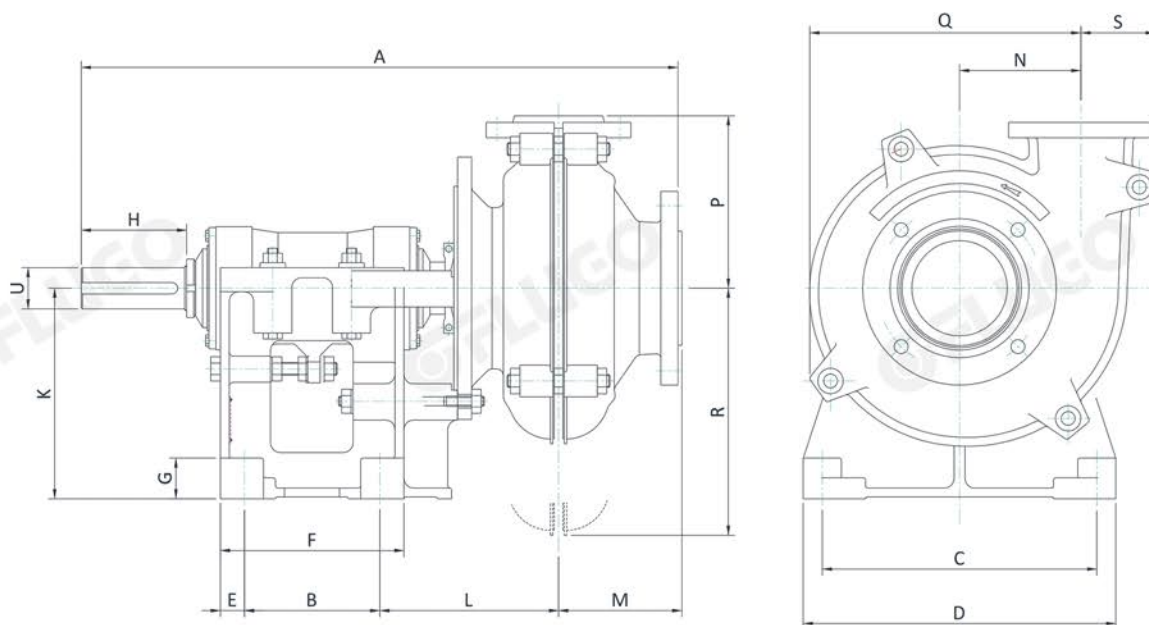
## Pump Features

- ┆ Elastomer or high chrome alloy liners provide corrosion & abrasion resistance, plus the interchangeability to reduce the maintenance cost and maximize wear life.
- ┆ Gland, expeller or mechanical seals are available to suite different working conditions.
- ┆ The bearing can be grease or oil lubricated which offer ease of maintenance and reduced downtime.
- ┆ Smaller and lighter impeller are more effective when handling lower concentration slurries.
- ┆ Large diameter & short overhang shaft which reduces shaft deflection, increase packing life and prolong bearing service life.

## Seal Options

- ┆ **Centrifugal Seal or Expeller Seal or Dynamic Seal** - The centrifugal seal consists of expelling vanes on the back of the impeller and an expeller which rotates in unison with the impeller. The expeller is located in a separate chamber behind the impeller. The expeller acts as a turbine to reduce the pressure of the slurry attempting to escape around the back of the impeller. The expeller forms a pressure ring within the expeller chamber and prevents the slurry from passing into the secondary seal area.
- ┆ **Gland Seal** - The gland seal comprises a number of soft packing rings, compressed in a chamber (stuffing box) against a protective wear sleeve which fitted to the pump shaft. This type of seal requires continuous clean flushing water lubrication and cooling between the rotating shaft sleeve and the compressed packing, to prevent over heating due to the friction.
- ┆ **Mechanical Seal** - When it is essential for the leakage to be prevented entirely, then mechanical seals should provide a solution. The mechanical seal consists of a stationary and rotating face pressed together under mechanical and hydraulic pressure to prevent leakage.

Dimensions



Pump Size	A	B	C	D	U mm	Key Size	E	F	G	H	K	L	M	N	Pump Head Size				Pump Weight (Kg)	
															S	Q	R	P	Metal	Rubber
20A-SC	461	159	241	286	20	6x6	25	210	28	57	146	89	90	86	58	-	-	128	36	28
50B-SC	613	143	254	295	28	8x7	24	196	38	79	198	191	136	114	83	268	183	163	113	91
75C-SC	800	175	356	406	42	12x8	30	241	48	125	255	255	164	146	102	338	219	204	185	164
100D-SC	950	213	432	492	65	18x11	38	289	64	163	331	280	187	191	117	427	292	261	356	343
150E-SC	1218	257	546	622	80	22x14	54	365	76	222	458	376	237	248	155	551	349	324	740	718
200E-SM	1337	257	546	622	80	22x14	54	365	76	222	458	403	330	381	232	832	540	489	1612	1054
200R-SM	1376	490	560	622	85	22x14	50	590	70	216	353	314	330	381	232	832	540	489	1836	1360
200F-SM	1541	349	762	857	100	28x16	95	540	98	279	610	445	330	381	232	832	540	489	1917	1438
250F-SM	1541	349	762	857	100	28x16	95	540	98	279	610	445	330	438	258	915	610	493	2150	1720
300F-SC	1634	349	762	857	100	28x16	95	540	98	281	610	525	301	475	265	1089	634	570	2636	2045
300S-SC	1712	640	760	920	120	32x18	70	780	90	277	450	416	301	475	265	1089	634	570	2864	2273
350S-SC	1763	640	760	920	120	32x18	70	780	90	277	450	426	341	530	295	1193	717	620	3566	2773
400G-SC	1992	749	851	1219	140	36x20	64	876	152	360	852	452	376	600	344	1350	809	740	-	-
400ST-SC	1818	620	900	1150	120	32x18	80	780	125	277	650	480	376	600	344	1350	809	740	4648	3545
450G-SC	2037	749	851	1219	140	36x20	64	876	152	360	852	472	401	660	380	1478	874	810	5380	4210
450ST-SC	1867	620	900	1150	120	32x18	80	780	125	277	650	501	401	660	375	1478	874	810	5602	4216
550TU-SC	2400	860	1200	1460	150	36x20	95	1050	150	350	900	625	500	860	453	1915	1146	975	11045	8273

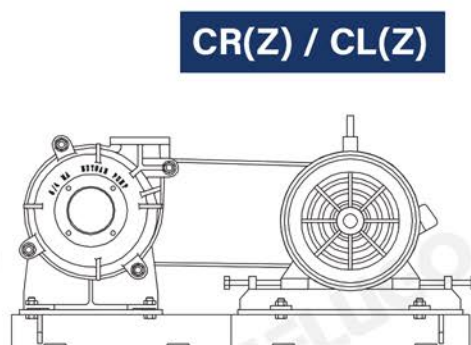
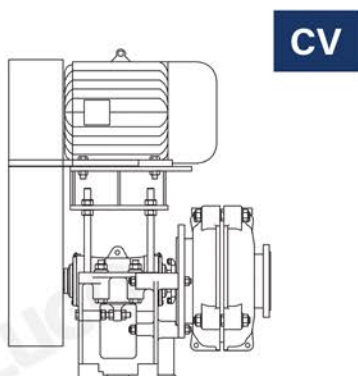
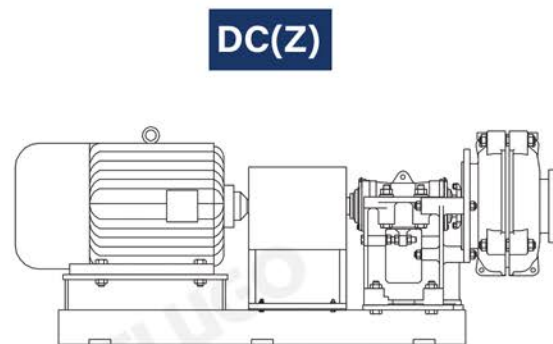
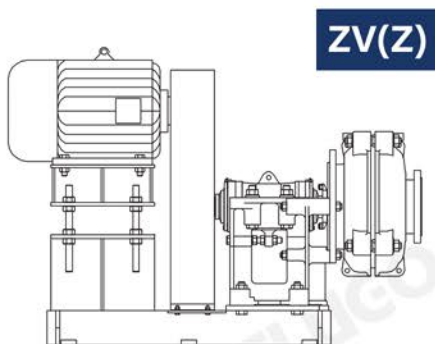
Note : All the dimensions are in millimeter (mm)

200E - SM equal to 10/8E-SM  
200R - SM equal to 10/8R-SM

200F - SM equal to 10/8F-SM  
250F - SM equal to 12/10F-SM

## Drive Arrangements

- └ Type CV, ZV (Z), CR (Z) / CL (Z) apply belt drive, the auxiliary equipment includes motor mount, pulley, belt, belt guard and fasteners.
- └ Type DC(Z) is motor direct drive, the auxiliary equipment includes coupling, guard and fasteners
- └ Z means base included



Authorized Distributor



AD-SC Series  
Medium & Light Duty Slurry Pump