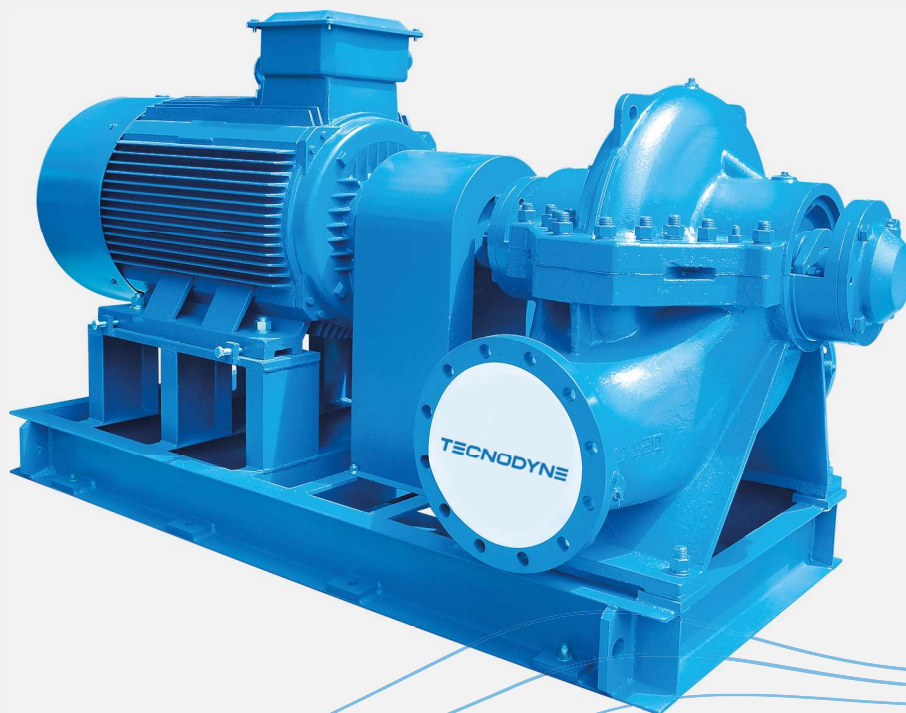


## **ES Series**

# **Double-Suction Split Case Pumps 50/60Hz**

**PRODUCT CATALOGUE**



# PRODUCT OVERVIEW

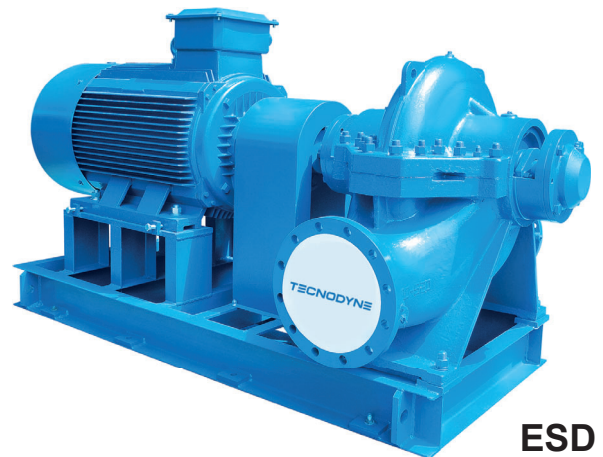
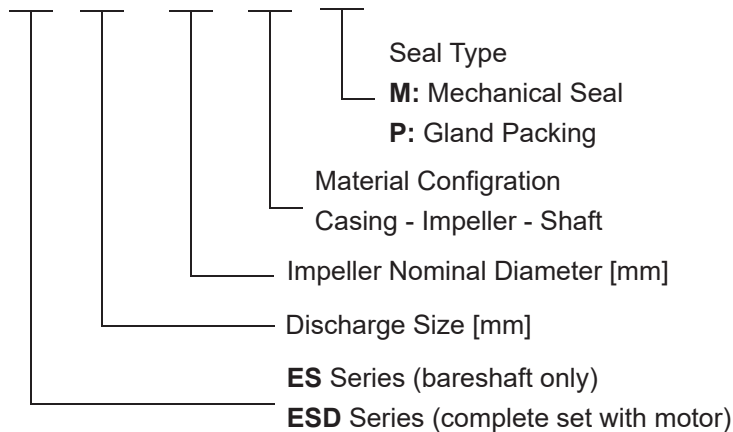
## High-efficiency hydraulics

### Product Description

ES is axial split case pump designed with double suction impeller. This type of pumps is of high flow rate, high efficiency, stable operation, low noise and long service life, easy to install and maintain. It is widely used in plants, mines, city water supply, HVAC and irrigation.

### Model Description

**ES 300 - 700 XXX X**



**ESD**



**ES**

### Applications

- Municipal Water Supply
- HVAC and Cooling Tower
- Power Plants
- Industrial water supply system
- Marine and Ship Building
- Fire Fighting System

### Material Code

C: Cast Iron - Q: Ductile Iron - B: Brass  
 S: ASTM 420 - 45: ASTM 1045  
 S304: ASTM 304 - S316: ASTM 316

### Options

- Delivered as a complete pump set consisting of pump, coupling, coupling guard, and motor mounted on baseplate
- Delivered as a complete pump set without motor..
- Delivered as bareshaft pump only.
- All pumps are equipped with energy efficient IE3-motors as standard
- Special motor requirements (on request).

# PRODUCT OVERVIEW

## Versatile & Reliable

### Design & Structure

Design	Performance referring to GB/T5657-95, Q/FZEF 001-2014 Standard
Structure	Single-Stage, Double-Suction, Split-Case
DN [mm]	80-400
Flange	DIN2501 PN16, GB/T17241.6 PN1.6

### Material of Construction

Part	Standard Material	Optional (on request)
Casing	Cast Iron	Ductile Iron / ASTM304 (CF8) / ASTM316 (CF8M)
Impeller	Brass	Cast Iron / ASTM304 (CF8) / ASTM316 (CF8M)
Shaft	ASTM1045	ASTM304 / ASTM316 / ASTM420
Shaft Seal	Mechanical Seal	Gland Packing

### Operating Data

Flow Rate (Q)	up to 3400 [m <sup>3</sup> /h]
Head (H)	up to 190 [m]
Speed	1480 or 2980 rpm (50Hz) and 1780 or 3580 rpm (60Hz)
Max. Temperature	85°C (standard) ; 105°C (on request)
Working Pressure	1.6 MPa (standard); 2.5 MPa (on request)
Conveying Medium	Clean water or liquids similar to clean water in physical property

### Flange Dimensions

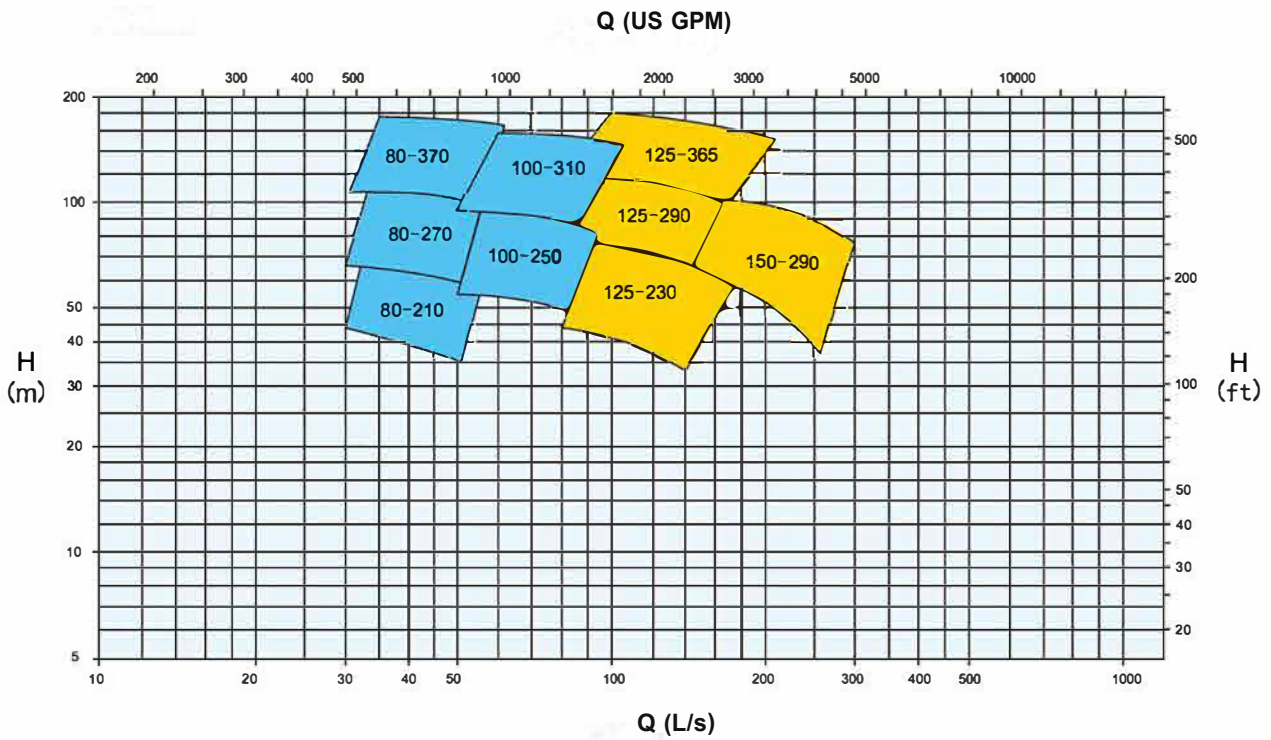
#### ISO7005.2 DIN2501 PN16 GB/T17241.6 PN1.6

DN1/DN2	80	100	125	150	200	250	300	350	400	450	500	600	700
K1/K2	160	180	210	240	295	355	410	470	525	585	650	770	840
D1/D2	200	220	250	285	340	405	460	520	580	640	715	840	910
S1/S2	22	24	26	26	30	32	34	38	40	40	46	54	54
n-d1/n-d2	8-Ø17.5	8-Ø17.5	8-Ø17.5	8-Ø22	12-Ø22	12-Ø26	12-Ø26	16-Ø26	16-Ø30	20-Ø30	20-Ø33	20-Ø36	24-Ø36

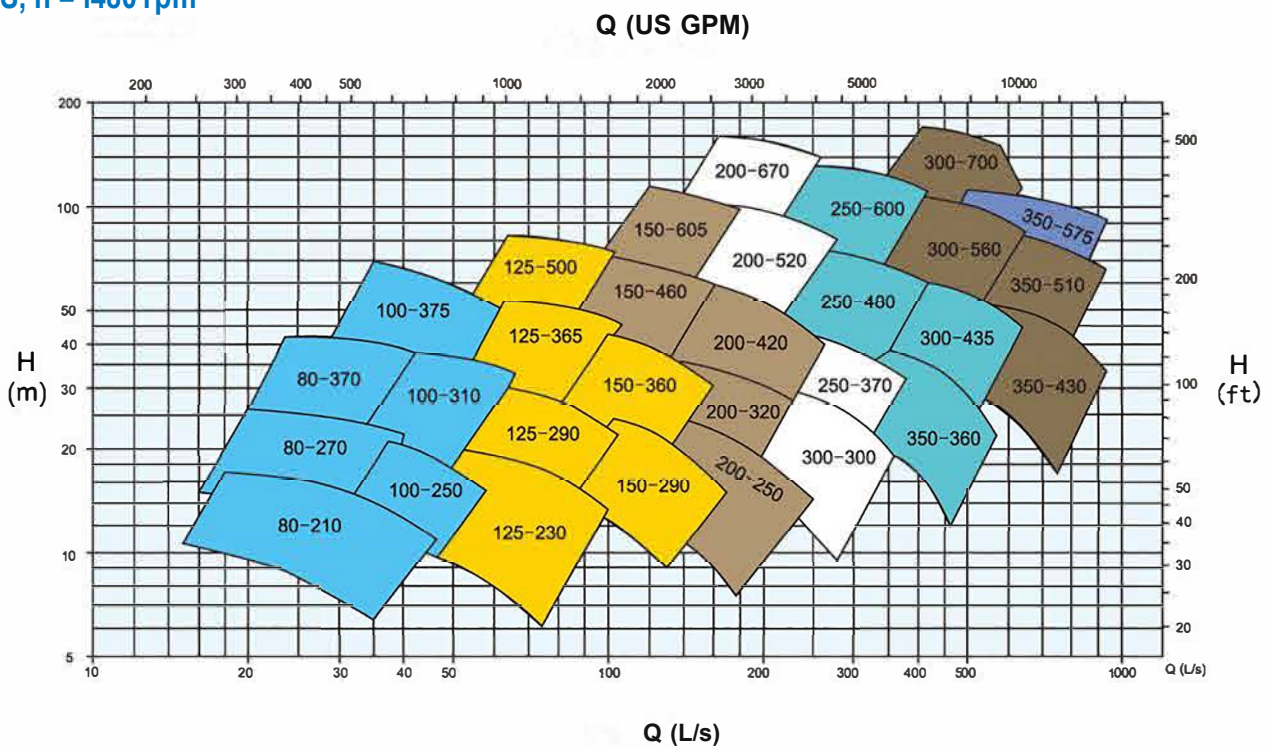
# PERFORMANCE RANGE

50 Hz

ES, n = 2980 rpm



ES, n = 1480 rpm

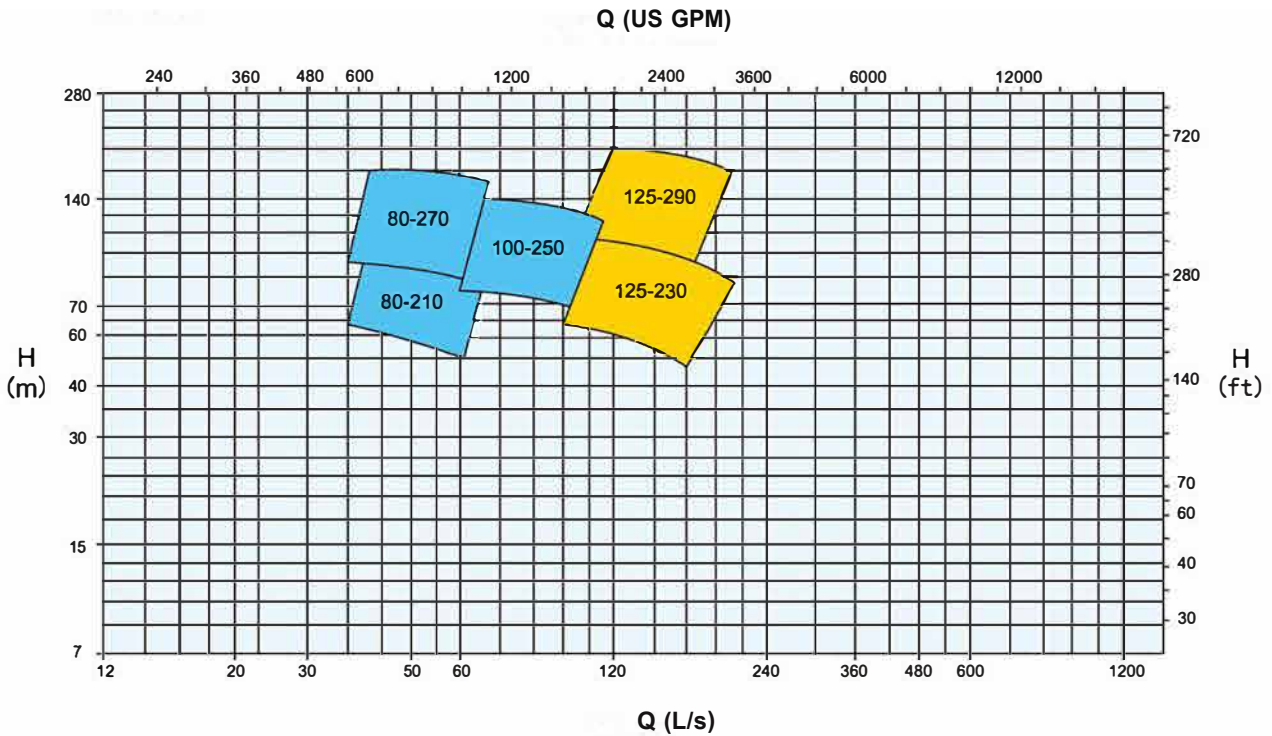


Performance to ISO9906 Grade 2 for clean cold water only

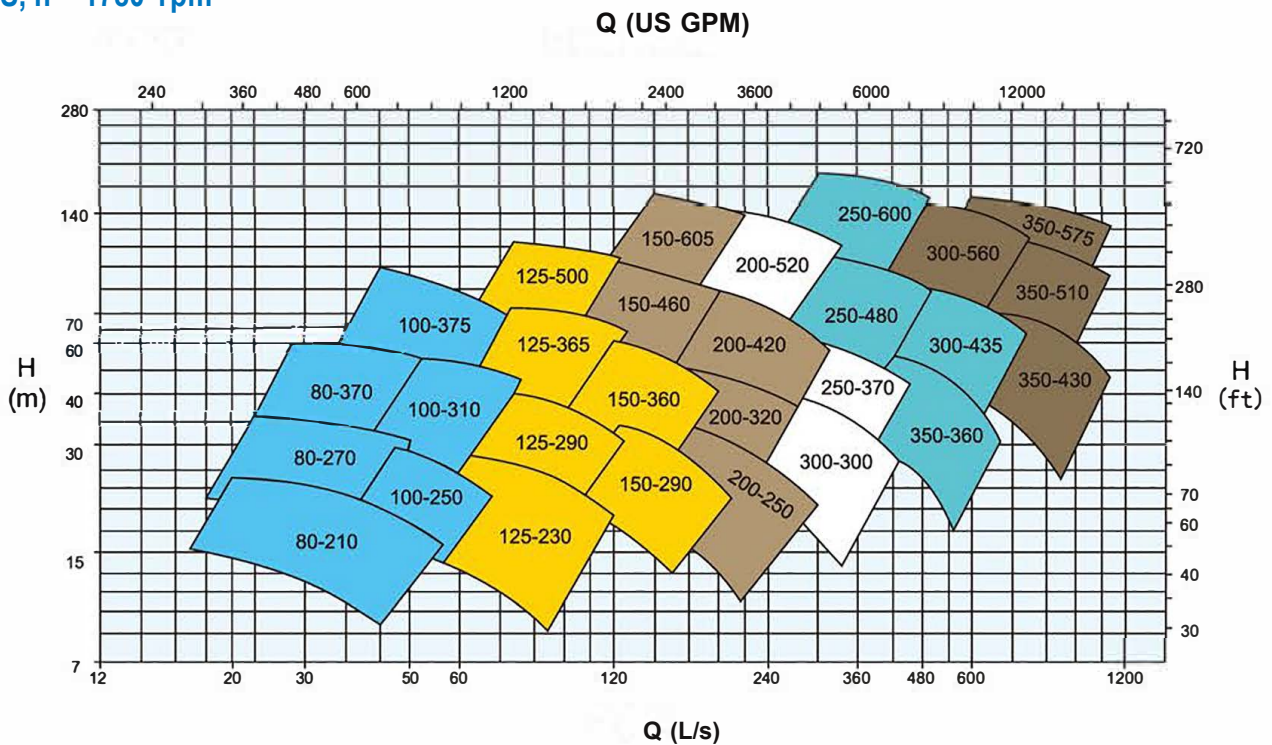
# PERFORMANCE RANGE

60 Hz

ES, n = 3580 rpm



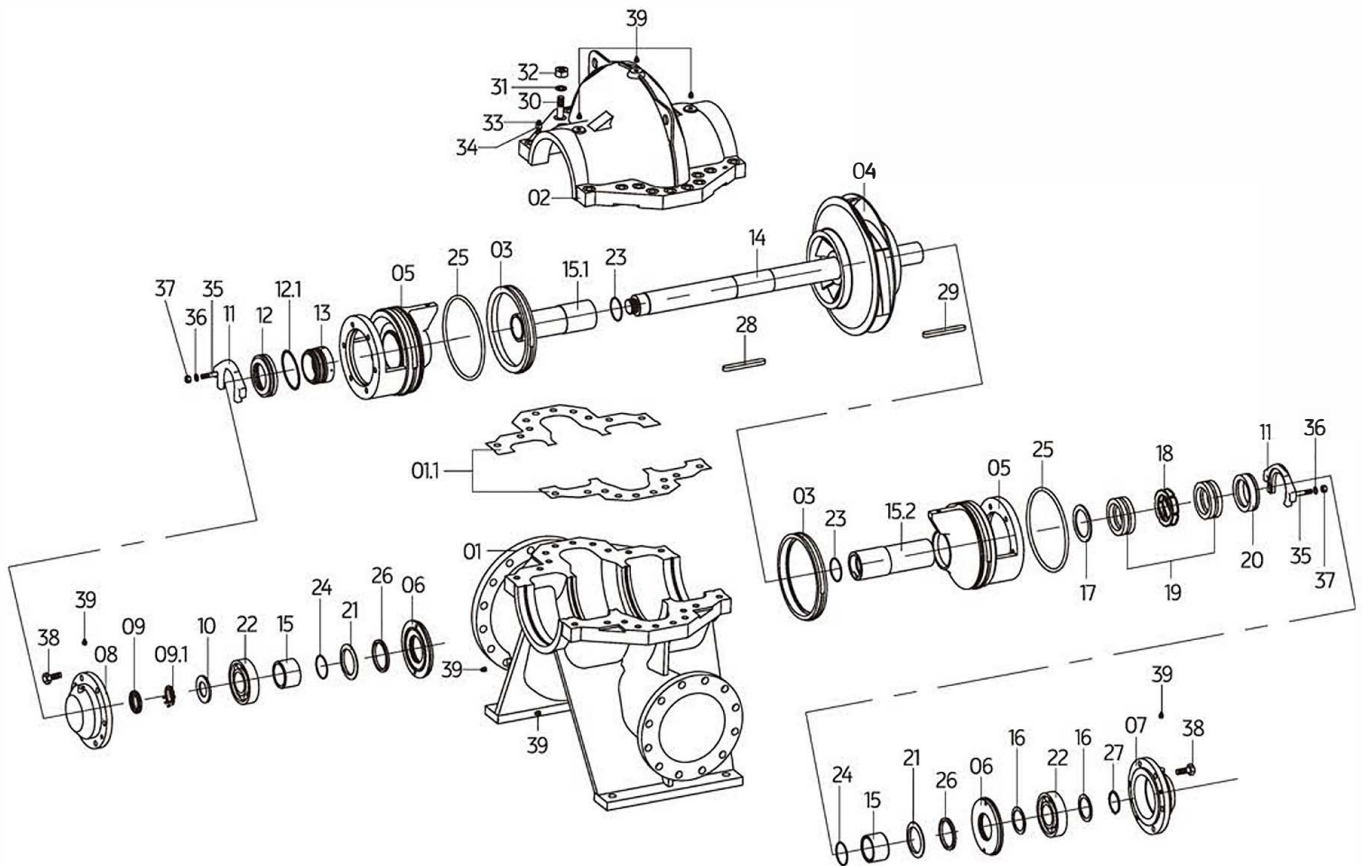
ES, n = 1780 rpm



Performance to ISO9906 Grade 2 for clean cold water only

# EXPLODED VIEW

## Parts List

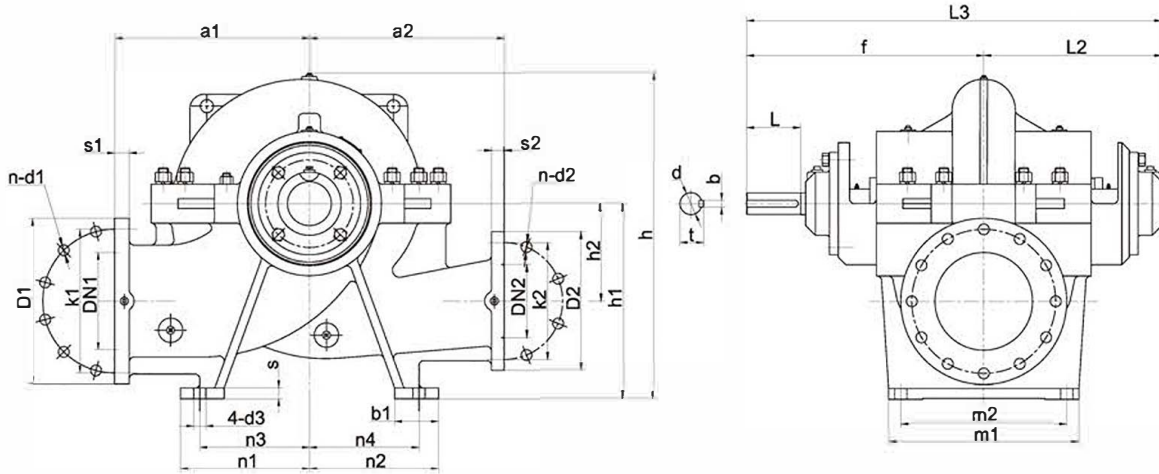


Part No.	Description
01	Casing-Bottom
1.1	Casing Gasket
02	Casing-Top
03	Wear Ring
04	Impeller
05	Seal Frame
06	Bearing Cover
07	Bearing Frame-DE
08	Bearing Frame-NDE
09	Screw Nut
09.1	Lock Washer for Nut
10	Bearing Slinger
11	Seal Plate
12	Seal Cover

Part No.	Description
12.1	Seal Cover Gasket
13	Mech Seal
14	Shaft
15	Shaft Sleeve-Short
15.1	Shaft Sleeve
15.2	Packing Shaft Sleeve
16	Bearing Seal Plate
17	Packing Seal Plate
18	Lantern Ring
19	Gland
20	Packing Cover
21	Slinger
22	Ball Bearing
23	O-ring
24	O-ring

Part No.	Description
25	O-ring
26	Felting
27	External Circlips
28	Key
29	Key
30	Screw Bolt
31	Spring Washer
32	Screw Nut
33	Pin
34	Screw Nut
35	Screw Bolt
36	Flat Gasket
37	Screw Nut
38	Screw Bolt
39	Plug

# DIMENSIONS & WEIGHT



Model	Pump Dimensions		Foot										Shaft				Weight kg								
	DN1	DN2	a1	a2	f	L2	L3	h	h1	h2	m1	m2	n1	n2	n3	n4		b1	d3	s	d	b	L	t	
ES 80-210			300	300				490																179	
ES 80-270	125	80						528	315	140			205	205	170	170								200	
ES 80-370					385	300	685	558			320	270												209	
ES 100-250			330	330				570																209	
ES 100-310	150	100						605	355	170			235	235	200	200								257	
ES 100-375								620																245	
ES 125-230								620																309	
ES 125-290			370	370				635					265	265	225	225	90							293	
ES 125-365		125						665		200														311	
ES 125-500			450	450	485	365	850	720	400		390	340	320	320	280	280	85		26		Ø44	12		47.3	414
ES 150-290			400	400				660		210			265	265	225	225	90		22					323	
ES 150-360								670														110		350	
ES 150-460		150	450	450				710					315	315	280	280	75		25					418	
ES 150-605			600	500				885		300			390	390	350	350	95	Ø30	35					755	
ES 200-250					540	420	960	793			480													450	
ES 200-320			450	450				805	500	240		430	315	315	280	280	85	Ø25	25		Ø54	16		58.3	506
ES 200-420	250	200	500	500				830					330	330										551	
ES 200-520			600	500				925	560	300	490								Ø28	28				700	
ES 200-670			650	550				1055		350	500													1218	
ES 250-280					629	479	1108	955				400									Ø64	18	145	68.4	550
ES 250-370			500	500				975	600	300	480		400	400	350	350								719	
ES 250-480	300	250	550					985		330														906	
ES 250-600			650	550	695	515	1210	1060	630	350	600	520												1116	
ES 300-300	350	300	550	500	629	479	1108	1010	630	300	500	400	400	400	350	350	100							792	
ES 300-435			650	550	695	515	1210	1072	670	333	600													947	
ES 300-560			700					1140	710	350			525	525	475	475	110							1301	
ES 300-700		300	750	650	785	605	1390	1255	750	400		520	530	530	475	475	120	Ø30	40		Ø84	22	180	89.4	1640
ES 350-360			650	550	695	515	1210	1100	670	350			400	400	350	350	100							1077	
ES 350-430	450		750								600		530	530	475	475	120							1445	
ES 350-510		350	700	650	785	605	1390	1200	750	400		620	525	525	475	475	110				Ø84	22	180	89.4	1456
ES 350-575			750	750	853	667	1520	1400		420	780	630												1900	
ES 400-525			750	700				1410	900	475			560	560	485	485	150	Ø35	35				210	1600	
ES 400-665	500	400	1000	750	968	747	1715	1550	1000	525	890	740												2000	

# TECNODYNE

## **TECNODYNE PUMPS INC.**

02 Sheppard Ave E, North York  
Ontario, Canada M2N 5Y7  
T: +1 (647) 255-2270  
[info@tecnodyne.ca](mailto:info@tecnodyne.ca)  
[www.tecnodyne.ca](http://www.tecnodyne.ca)

## **TECNODYNE (China) Ltd.**

Suite C, Level 7, World Trust Tower  
50 Stanley Street, Central  
Hong Kong  
[hk@tecnodynepumps.com](mailto:hk@tecnodynepumps.com)  
[www.tecnodynepumps.com](http://www.tecnodynepumps.com)