PROGRESSIVE TECHNOLOGIES

PROGRESSING CAVITY SCREW PUMPS

Tariq Alsafeena

DESIGN & MANUFACTURING TECHNICAL CONSULTANT REPAIR & RECONSTRUCTION PROVISION OF SPARE PARTS/ AFTER SALES SERVICES



Company introduction

Tariq Alsafeena company is one of the largest manufacturers of mono pumps in Middle East. With more than two decades of experience in various industries and according to the needs of the country, especially sewage, agriculture, food, marine, paint and resin, chemical, mineral, oil and petrochemical industries, this company started to manufacture pumps with High efficiency, reliable performance and low depreciation for transporting oil derivatives, drilling mud and transporting all materials with high concentration.

The company of Tariq Alsafeena company have been working in the field of technical consulting, design, production, repair and restoration of all types of pumps and mono pumps with different sizes and mechanisms, as well as providing spare parts. In this way, Tariq Alsafeena Mono pump, with its brilliant history and relying on its knowledge and experienced engineers, declares its readiness to cooperate with active companies in all industries.



Pumps and mono pumps of Takran kavoush Industrial Group have been widely welcomed by industrial owners in the country due to the high quality in manufacturing, assembly and extensive technical services and favorable product warranty.

All custom parts and products of this collection are tested and delivered to the customer in the company's well-equipped laboratory, which is specially designed for testing pump performance according to the required standards.

The main products of this company are:

- Mono pump for flocculant
- Mono pump for flour and bread industries
- Different types of dosing pumps
- Centrifugal pumps
- Mono pump for transferring sludge and water and sewage
- Barrel mono pump
- Mono pump for chemicals and all kinds of detergents, paints and resins
- Mono pump for food industries
- Tank emptying mono pump
- Floor pumps
- Funnel mono pumps with bridge breaker

Tariq Alsafeena mono pumps are designed by the engineering team according to various functional conditions and customer needs and are produced in the workshops of this company. These mono pumps are competitive with the mono pumps of the famous brands in the world, which are designed and produced as standard with flanged inlet and outlet and steel plate chassis. In addition to providing standard models that are commonly used in the industry, Tariq Alsafeena Industrial Group has the possibility of engineering, designing and manufacturing customized samples according to the needs of customers. In custom designs, it is possible to add features such as the use of special materials and coatings in the structure of the pump parts, special electrical and electronic considerations (such as being anti-spark, etc.), the appearance and dimensions of the mono pump, as well as control and protection systems to the standard mono pump. In the following, some custom designs that can be used in different industrial units are mentioned.



Pump model	P, bar	Q, M₃/h	N, kW	R, min	Main dimensions, mm		M, kg	Out, DN,	Main stator dimensions, mm			Permitted size of particles	
РН					L1	L2	L3		mm	L4	D	d	(hard/soft)
021501	4	0.6-1.5	0.55-1.1	525-828	260	200	840	27	25	112	51	20	6/9
021502	12	0.1-1.4	0.55-1.1	220-1090	260	200	940	30	25	212	51	21	6/9
021504	24	0.6-1.5	0.75-1.5	560-1090	260	250	1350	55	25	412	51	20	6/9
021L01	6	0.8-2.2	0.75-1.1	350-890	260	200	940	30	25	212	51	30	6/9
031501	6	0.5-2.4	0.55-1.1	262-648	270	220	970	45	50	162	70	30	9/13
031502	12	0.5-1.8	0.75-1.1	262-545	270	220	1105	60	50	304	70	31	9/13
031504	24	0.5-2.1	1.1-3	266-624	300	250	1720	80	50	588	70	30	9/13
031L01	6	1.1-3.7	0.75-1.5	216-545	270	220	1105	48	50	304	70	30	9/13
038501	6	2-5.4	1.5-2.2	380-631	320	250	1270	75	65	226	89	38	14/21
038502	12	2.2-5.8	2.2-4	380-638	320	250	1470	90	65	426	89	38	14/21
038504	24	2-4.7	5.5-7.5	380-593	360	300	2325	130	65	826	89	39	14/21
038L01	6	4.2-9.8	2.2-4	250-513	320	250	1470	90	65	426	89	38	14/21
045501	6	2-8.5	2.2-4	296-622	300	250	1340	85	80	261	108	45	17/26
045502	12	4.4-10	4-5.5	319-600	300	250	1560	110	80	493	108	45	17/26
045503	18	3.5-8.6	5.5-7.5	297-547	350	300	2470	180	80	725	108	46	17/26
045504	24	2.6-7.1	5.5-11	260-469	350	300	2700	260	80	957	108	46	17/26
045L01	6	8.1-18.6	3-5.5	257-515	300	250	1560	115	80	493	108	45	17/26
053S01	6	3.9-13	3-5.5	273-547	350	350	1650	150	100	316	121	53	20/30
053502	12	8.1-15.6	5.5-11	273-547	350	350	1930	170	100	598	121	53	20/30
053503	18	3.5-10.5	4-11	167-370	450	350	2840	210	100	880	121	54	20/30
053S04	24	5.5-10	11-15	278-397	450	400	1915	290	100	1162	121	54	20/30
053L01	6	11.1-28	4-7.5	200-469	350	400	1930	160	100	598	121	53	20/30
063501	6	3.5-20	2.2-7.5	169-469	335	350	1760	185	125	363	146	63	24/37
063502	12	3.3-17.5	4-11	167-397	335	350	2080	240	125	685	146	63	24/37
063503	18	8-17.4	7.5-15	208-360	540	400	3130	415	125	1007	146	64	24/37
063504	24	8-17.1	11-18.5	208-360	540	400	3450	505	125	1329	146	64	24/37
063L01	6	13-40.5	4-11	167-397	335	350	2080	240	125	585	146	63	24/37
076501	6	5.2-28.5	4-11	156-381	485	420	2330	480	150	419	168	75	30/45
076502	12	6.5-28.6	7.5-18.5	156-381	485	420	2700	560	150	791	168	75	30/45
076503	18	10-20.5	11.18.5	167-265	550	450	3720	670	150	1163	168	76	30/45
076504	24	10.2-20.2	11-18.5	167-265	550	450	4100	715	150	1535	168	76	30/45
076L01	6	20-62.4	7.5-18.5	135-360	485	420	2700	570	150	791	168	75	30/45
090501	6	15-47	11-18.5	186-372	525	450	2620	675	150	500	203	89	36/54
090502	12	18-35	15-18.5	167-265	525	450	3061	785	150	944	203	89	36/54
090503	18	16-33	22-30	158-253	600	350	4320	940	150	1388	203	90	36/54
090504	24	15-35	22-37	137-253	650	500	4857	1010	150	1832	203	90	36/54
090L01	6	34-106	11-30	141-372	252	450	3060	790	150	944	203	89	36/54
105501	6	24-57	11-18.5	158-274	600	560	3100	1015	200	623	230	104	41/62
105502	12	28-58	30-40	158-274	600	560	3650	1180	200	1179	230	104	41/62
105503	18	29-56	30-40	158-249	630	580	4210	1410	200	1735	230	105	41/62
105S04	24	17-36	37-45	124-189	630	580	4770	1520	200	2291	230	105	41/62
105L01	6	55-119	22-37	137-249	600	560	3650	1170	200	1179	230	104	41/62
125S01	6	36-74	15-22	137-214	775	600	3890	1350	250	740	273	124	50/74
125502	12	38-77	30-45	137-214	775	600	4550	1570	250	1400	273	124	50/74
125503	18	16-60	37-60	135-220	895	600	6050	1880	250	2060	273	125	50/74
125504	24	8-36	37-60	160-220	895	600	6710	2030	250	2720	273	125	50/74
125L01	6	82-160	22-37	106-191	775	600	4550	1580	250	1400	273	124	50/74

BASIC STRUCTURATION OF SCREW PROGRESSING

Can be made as general industrial, climatic, or explosion-proof construction. It can be equipped with a hydraulic drive. Depends on the desires of the customer and the model of the pump, the) The Coupling unit can be made in the form of the pipe with the flange sleeve, the quick Provides transmission coupling connection, or in torque from the the form of a rectangular geared motor to the charging inlet .. bearing rack.

09 The Transitional Rack or The Bearing Rack

It is the connecting node between the drive and the pump chamber. The maintenance of seal of the drive shaft happens through the transitional rack. **08** The Shaft Sea

Provides the seal of the shaft. It is possible to use serviced stuffing box, single and double mechanical seal with flushing.

It compensates eccentricity of the rotor, filled with grease and has a sealed structure.

3 Transmission ro

CAVITY PUMPS

Provides the delivering of pumping substance to the screw pair of pump unit.

07 The Pump Chamber

Inner double threaded helical line made of elastomer and fixed inside of the metal sleeve.

UZ The Stato

The external single-start helical line with crosssection the center of which is shifted on the size of eccentricity from the rotative axis. The rotor is made of metallic alloys, coated or uncoated.

04 The Flexible join lt

compensates eccentricity of the rotor, filled with grease and has a sealed structure.

2 The Mounting

Provides coaxial fixing of all nodes of the horizontal pump unit.

<u>Outlet</u>

Depends on the desires of the customer and the model of the pump, the unit can be made in the form of the pipe with the flange sleeve or the quick coupling connection.



Petroleum And Petrochemical Industries

- Crude oil transportation
- *Rail unloading
- * Explosives-atmospheres
- * Isolation of the tank
- *****FPSO
- ***** Underground storage tanks
- * Marine applications

SPHERES OF PROGRESSING CAVITY PUMPS APPLICATION

Mining Industries

- *Molybdenum sludge
- **♦** gold slurry
- ***** Ammonium nitrate emulsion
- ***** Copper treatment
- * Explosives industry

Pulp And Paper Industry

- **Cellulose**
- **♦** Filling agents
- * Pigments
- ***** Bonding materials
- *****Adhesives
- ***** Chemical and reagents

Food Industry

Milk and milk derivatives
Vegetable oil
Minced meat
Fruit purees
Tomato paste and sauce
Fillings with various inclusions
Syrup, sugar pulp
Squash, mash, press cake

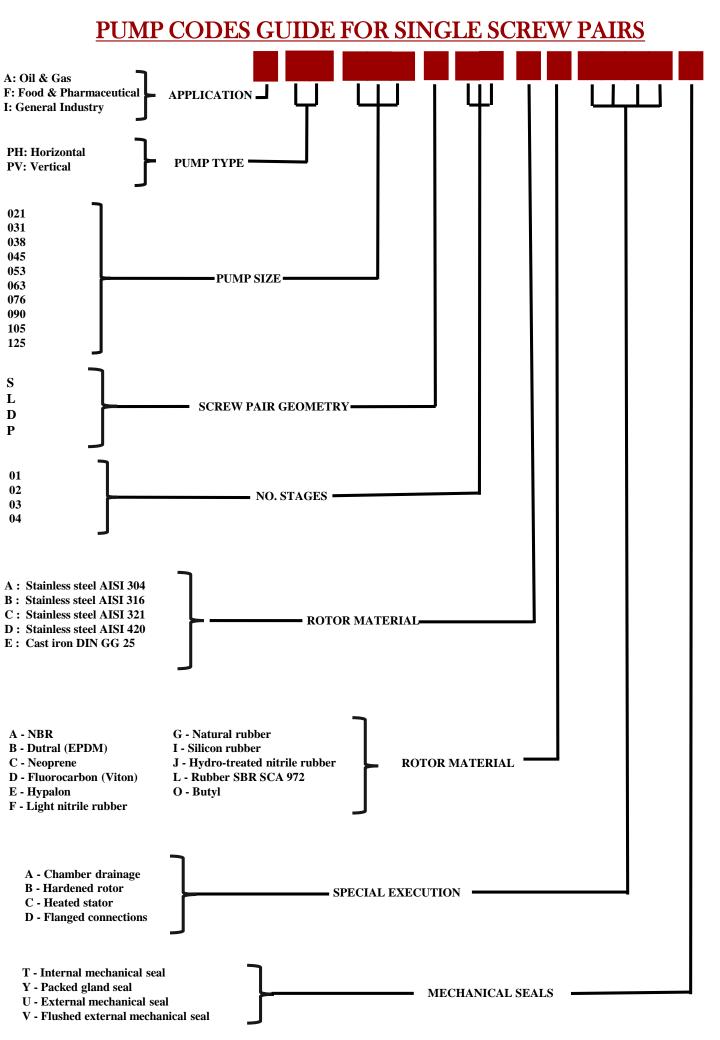
Water Purification And Water Supply

- * Wastewater and slime water
- *****Groundwater with inclusions
- * Fecal fluid
- *Bog muck
- Chemical and reagents
- * Flocculants

SPHERES OF PROGRESSING CAVITY PUMPS APPLICATION

Pharmaceutical And Cosmetic Industry

- ***** Surfactant liquids
- ***** Pastes and ointments
- * Plasticizers
- * Creams
- ***** Vegetable and animal fats
- ***** Chemicals and reagents
- ***** Precise dosage





Tariq Alsafeena

QUESTIONNAIRE FOR HELICAL PROGRESSING CAVITY PUMPS SELECTION

Name of the Company
Contact numbers
Contact person
E-mail:

PARAMETERS	DESCRIPTION
Application (Oil & Gas/Food & Pharmaceutical/General Industry)	
Pump type (horizontal/vertical)	
Fluid name	
Capacity, m3 /h	
Inlet pressure, bar	
Outlet pressure, bar	
Fluid temperature (min/max) °C	
Density, kg/m 3	
Viscosity, cP	
РН	
Presence of particles	
Size of particles, mm	
Site ambient temperature (min/max), °C	
Diameter of suction / discharge pipes, mm	
Inlet/outlet connection type (flange/dairy fitting)	
Shaft seal type (stuffing box/mechanical/double mechanical)	
Installation location (indoor/outdoor)	

Additional options:

FEATURES	YES	NO	DESCRIPTION
Screw feeder			
Input neck			
Heating of pump chamber/screw pair			
CIP flushing of the unit			
Explosion-proof version			
Frequency converter			
Control system «dry run»			
Overpressure protection			
Special climatic version			

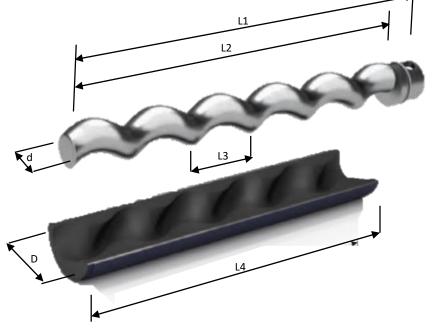
Tariq Alsafeena QUESTIONNAIRE FOR HELICAL SCREW PAIR

Name of the Company
Contact numbers
Contact person
E-mail:

PARAMETERS	DESCRIPTION
Original manufacturer (O&M)	
Pump model/Order number	
Fluid name	
Capacity, m3 /h	
Inlet pressure, bar	
Outlet pressure, bar	
Fluid temperature (min/max) °C	
Density, kg/m 3	
Viscosity, cP	
РН	
Presence of particles	
Size of particles, mm	
Site ambient temperature (min/max), °C	
Diameter of suction / discharge pipes, mm	
Rotor material	
Stator material	

Screw pair geometry type (S/L/D/P)

PARAMETERS	VALUES
L1, mm	
L2, mm	
L3, mm	
L4, mm	
d <i>,</i> mm	
D, mm	







TEL: +971581827857 P.O.BOX: 9717 Dubai UAE EMAIL: <u>T.alsafeena@gmail.com</u> <u>www.TariqAlsafeena.com</u>