



# CASTLE PUMPS LTD

Your process delivered.

The UK Agent of...  
**azcuepumps**



## Datasheet

**High flow capabilities** for the transfer of large volumes

**Interchangeable spare parts** with other Azcue models to reduce stock holding

**Bearings greased for life** with bearing replacement at 35,000 intervals

**Magnetic coupling on request** to prevent the leaking of a mechanical seal - enhances service life when used for critical applications

**Marine type approved** by all classification societies e.g. Lloyds/ABS

Pump is **reversible** on request

**Long coupled** to enable maintenance of pump head without removing the motor first



**Space saving vertical design** - smaller footprint than equivalent performing gear pumps

**Competitively priced** in the market compared to other small screw pumps available

Able to handle **lubricating fluids** under fluctuating flow, pressure and viscosities without losing efficiency

Built in **relief valve** for pump protection

**Additional bearing** in the pump head to share the strain of operation and increase robustness

**Manufactured in Spain** with materials from own foundry

## Series **BT-LH/LV** Triple Screw Pump – High Flow, Long Coupled

# BT-LH/LV Triple Screw Pump – High Flow, Long Coupled



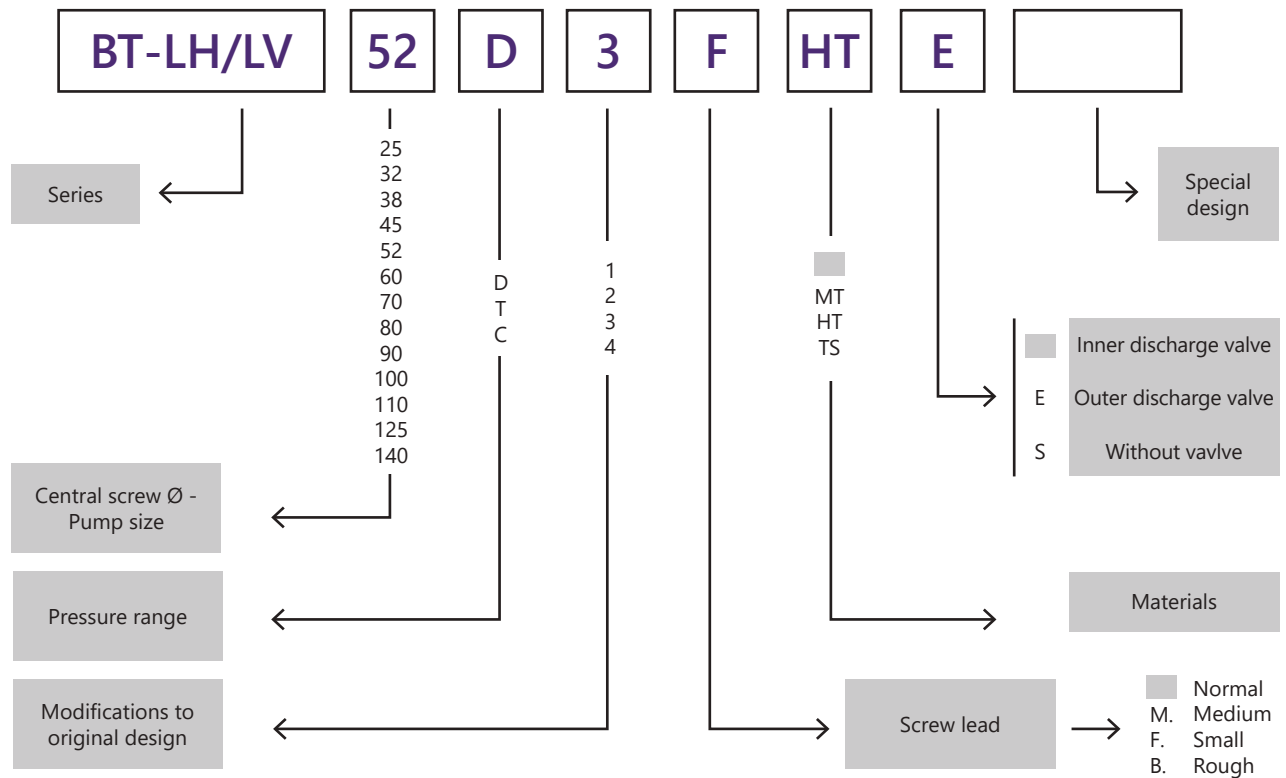
### Performance:

Max Flow rate	190 m <sup>3</sup> /h
Max Pressure	12 bar
Sizes Available	DN125 - DN150 Outlet


### Maximum Fluid Temperature:

Normal	100°C
MT	130°C
HT-TS	155°C

## Description



### Available Options -

- ATEX approved 
- Magnetic coupling - To prevent the leaking that can occur with worn mechanical seals. Enhances service life when used for critical applications
- Reversible operation

### Common Applications -

- Diesel
- Kerosene
- Petroleum
- Fuel oil
- Marine fuel transfer (MGO, HFO)
- Fuel oil cargo loading/unloading
- Lube oil transfer
- Lubricant circulation
- Fuel oil separation

### Benefits -

- Manufactured in Spain by manufacturer with over 100 years' experience, using materials from their own foundry for complete control
- Marine type approved by all classification societies e.g. Lloyds/ABS for independent verification the pump meets quality standards
- High flow capabilities for the handling of large volumes of fluids and bulk transfer applications
- Long coupled to separate the pump head from the motor, so should the seal fail fluid is prevented from entering the motor and causing damage to this part
- Easy to maintain thanks to being able to access the pump head without removing the motor first
- Compact and space saving design with smaller footprint compares to equivalent performing gear pump, making it ideal for installations which have limited space
- Separate shafts in pump head and motor, which means that there is no need to replace entire pump and motor if shaft wears, saving costs
- Able to handle lubricating fluids under fluctuating flow, pressure and viscosities without lose efficiency
- Interchangeable spare parts with other Azcue models to reduce stock holding required
- Spares available for a minimum of 15 years after model discontinuation for long term servicing even if the pump is no longer produced
- Bearings are greased for life with long service intervals to reduce maintenance costs – bearings replaced at 35,000 hours
- Integrated manually adjustable pressure relief valve for pump protection
- Motors are tropicalized as standard for operation up to 45°C meaning the motor is designed continue operating during higher than average temperature
- Can be reversible upon request for tank to tank transfer and for emptying the discharge line
- Magnetic coupling on request to prevent the leaking that can occur with worn mechanical seals and enhance service life when used for critical applications.
- ATEX approved version for hazardous environments and flammable fluids

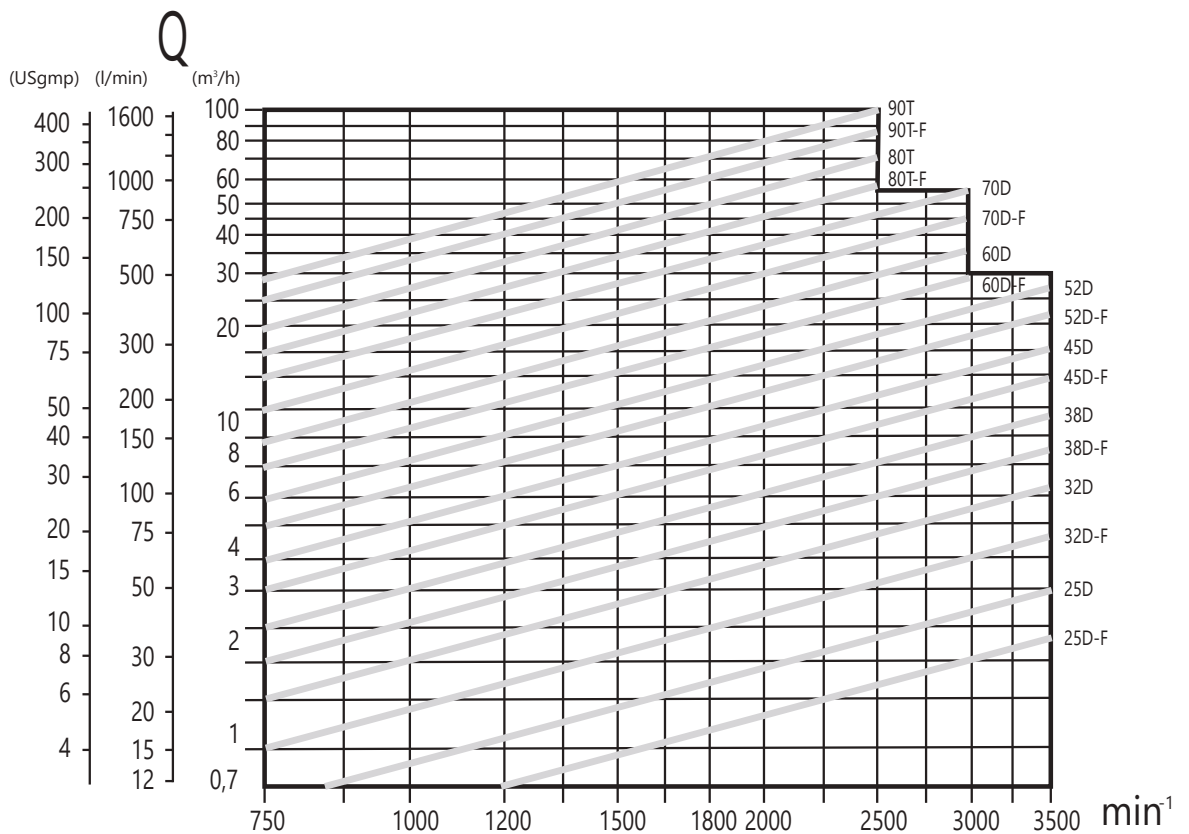
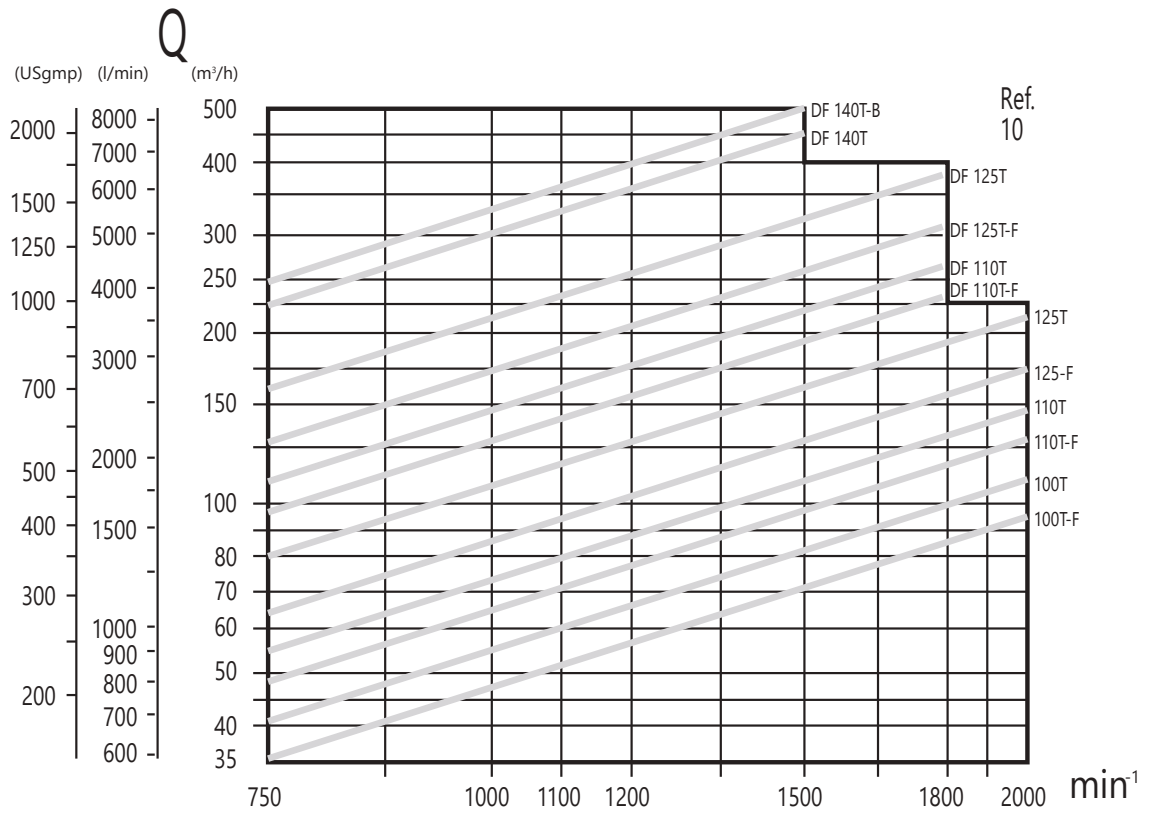


### Materials

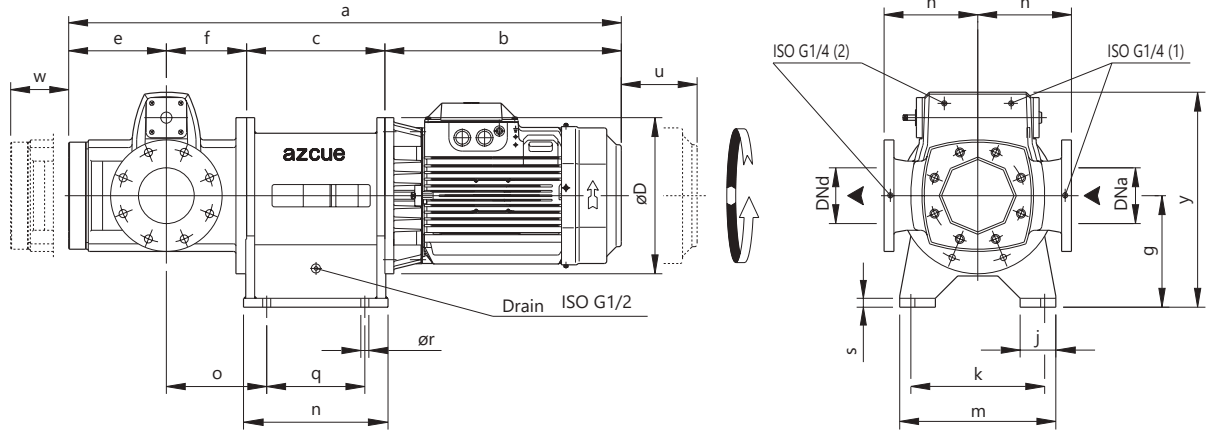
	Standard	MT	HT	TS
Pump casing	GG25	GGG40	GGG40	
Driving spindle	Nitrided Steel	Nitrided Steel	Nitrided Steel	
Idler spindles	GG30 Nitrided	GG30 Nitrided	GG30 Nitrided	
Mechanical seal	Graphite Hardened Steel Viton	Graphite Hardened Steel Viton	Carb. silic. Carb. silic. Viton	Carb. silic. Carb. silic. Viton



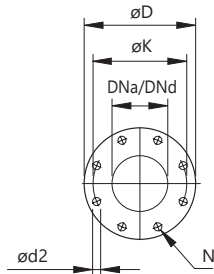
### Performance Curves



## Dimensions – BT-LH



(2) Manometer connection.      (1) Vacuum connection.



DIN 2501, Pn10/16

DNa	125	150	200
DNd	210	240	295
K°	250	285	340
N°	8	8	8
d <sub>2</sub>	18	22	22
	Pn16	Pn10	

Pump	Type	Motor			a	b	c	D	e	f	g	h	j	k	m	n	q	o	r	s	y	DNa	DNd	u	w	kg (*)	
		R.p.m. / t/min.																									
		725	950	1,450																							
LH 80T 90T	112-M	1,5	2,2	4	979	310	270	300																			
	132-S	2,2	3	5,5	1054	385	270	300								284	180							140		185	
	132-M	3	4-5,5	7,5																							
	160-M	4-5,5	7,5	11	1239	530			219	180	250	210	80	300	350												
	160-L	7,5	11	15																							
	180-M	-	-	18,5																							
	180-L	11	15	22	1289	580																					
200-L	15	18,5	30	1339	630	310	400																				
LH 100T 110T	132-M	3	4-5,5	7,5	1229	385	340	350																	140		
	160-M	4-5,5	7,5	11	1374	530																					
	160-L	7,5	11	15																							
	180-M	-	-	18,5	1424	580							80	300	350	355	240								170	320	
	180-L	11	15	22					274	230	325	250															
	200-L	15	18,5-22	30	1474	630	340	400																			
	225-S	18,5	-	37	1574	700	370	450																			
225-M	22	30	45									100	400	450	385	270								200	335		
250-M	30	37	55	1649	775	370	550																				
LH 125T	180-M	-	-	18,5	1504	580	340	350																			
	180-L	11	15	22									80	300	350	355	240								170	375	
	200-L	15	18,5-22	30	1554	630	340	400																			
	225-S	18,5	-	37	1654	700	370	450																			
	225-M	22	30	45					314	270	325	270															
	250-M	30	37	55	1729	775	370	550																			
	280-S	37-45	45-55	75-90	1854	900																					

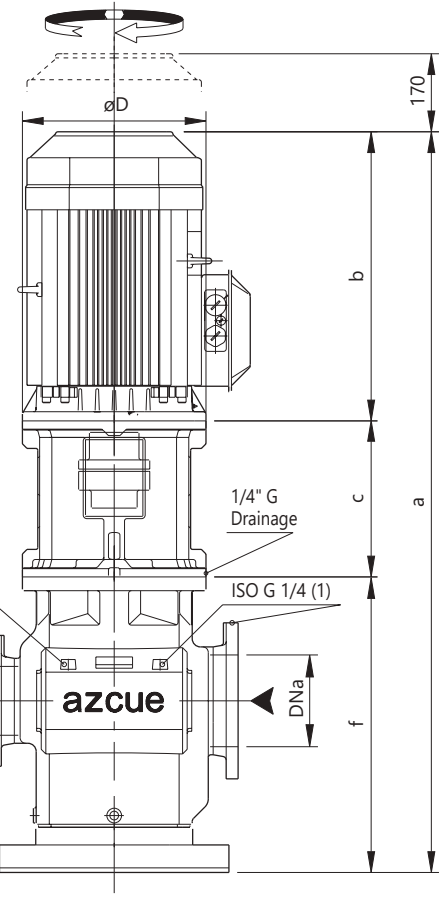
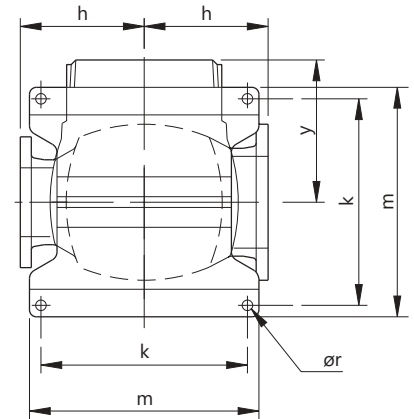
Subject to alterations

(\*) The stated weight does not include the motor



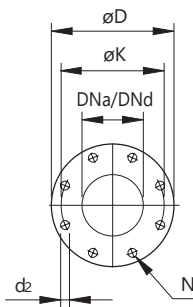
**Dimensions – BT-LV**

Pump	Type	Motor			a	b	c	D	e	f	h	k	m	r	s	y	DNa	DNd	u	kg (*)	
		R.p.m. / t/min.																			
		725	950	1450																	
LV 80T 90T	112-M	1,5	2,2	4	1029	310	270	300	269	449	210	350	400	23	8	232	125	125	140	175	
	132-S	2,2	3	5,5	1104	385	270	300													
	132-M	3	4-5,5	7,5																	
	160-M	4-5,5	7,5	11	1289	530															
	160-L	7,5	11	15		310	350														
	180-M	-	-	18,5	1339	580															
LV 100T 110T	132-M	3	4-5,5	7,5	1289	385	340	350	334	564	250	400	450	23	10	280	150	150	170	300	
	160-M	4-5,5	7,5	11	1434	530															
	160-L	7,5	11	15		340	350														
	180-M	-	-	18,5	1484	580															
	180-L	11	15	22																	
	200-L	15	18,5-22	30	1534	630	340	400													
LV 125T	225-S	18,5	-	37	1634	700	370	450	374	644	270	450	500	23	10	310	200	150	200	310	
	225-M	22	30	45	1789	775	370	550													
	250-M	30	37	55	1709	775	370	550													
	180-M	-	-	18,5	1564	580	340	350													
	180-L	11	15	22																	
	200-L	15	18,5-22	30	1614	630	340	400													
LV 125T	225-S	18,5	-	37	1714	700	370	450	1914	900	370	550								200	380
	225-M	22	30	45																	
	250-M	30	37	55	1789	775															
	280-S	37-45	45-55	75-90																	



Subject to alterations

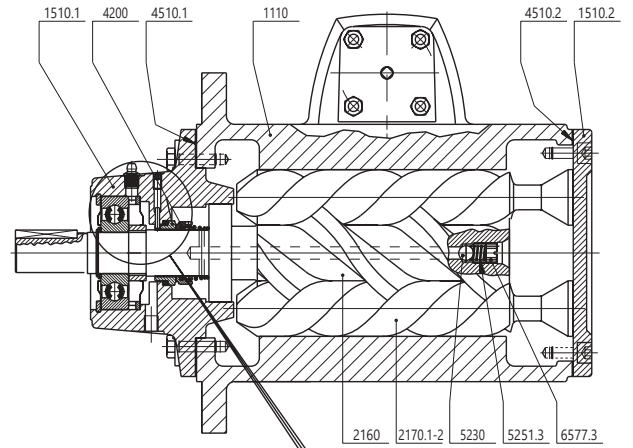
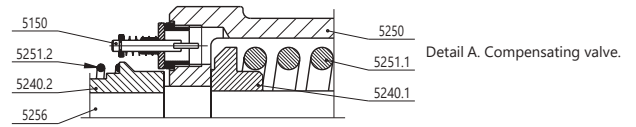
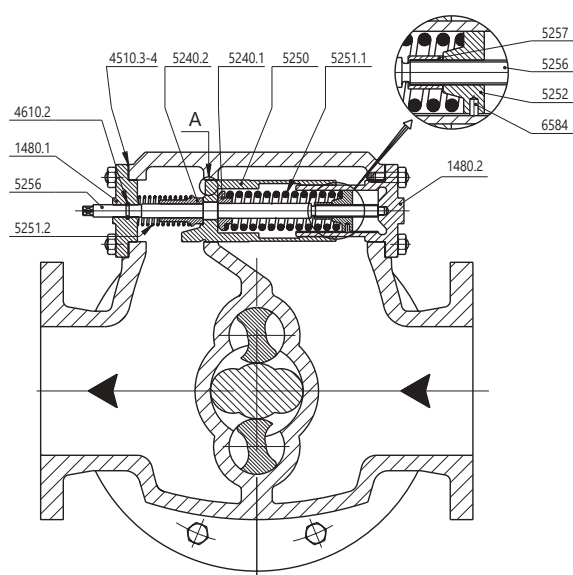
\* The stated weight does not include the motor (1) Vacuumeter connection. (2) Manometer connection.



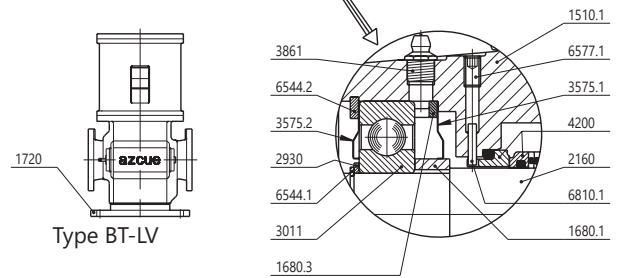
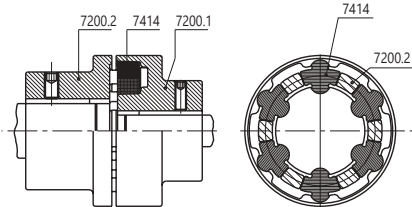
DIN 2501, Pn10/16

DNa / DNd	125	150	200
K <sup>o</sup>	210	240	295
D <sup>o</sup>	250	285	340
N <sup>o</sup>	8	8	8
d <sub>2</sub>	18	22	22
	Pn16	Pn10	

## Sectional Drawing – BT-LH/LV



Coupling





## Sectional Drawing – BT-LH/LV

Description	Ref.
Pump casing	1110
Pump casing insert	1130
Cover	1480.1
Cover	1480.2
Pump cover	1510.1
Pump cover	1510.2
Pump cover	1510.3
Spacer bush	1680.1
Spacer bush	1680.2
Spacer bush	1680.3
Flange	1690.1
Flange	1690.2
Pump foot	1720
Driving spindle	2160
Idler spindle	2170.1-2
Solidary shaft	2161
Bush	2187.1
Bush	2187.2
Thrower	2540
Loose collar shoulder ring	2930
Radial ball bearing	3011
Grease retaining cover	3575.1
Grease retaining cover	3575.2
Bearing bush	3610.1-2
Bearing nut	3850
Bearing nut	3850.1
Bearing nut	3850.2
Grease nipple	3861
Mechanical seal	4200
Mechanical seal cover	4213
Joint	4510.1
Joint	4510.2
Joint	4510.3
Joint	4510.4
Joint	4510.5
Joint	4510.6
O-ring	4610.1
O-ring	4610.2
O-ring	4610.3
O-ring	4610.4
O-ring	4610.5
O-ring	4610.6
O-ring	4610.7
O-ring	4610.8
Ball valve	5120
Compensating valve	5150
Valve body	5200
Valve ball	5230
Valve seat	5240.1
Valve seat	5240.2
Valve piston	5250
Valve spring	5251.1
Valve spring	5251.2
Valve spring	5251.3
Valve spring plate	5252
Regulating spindle	5256
Valve spacer sleeve	5257
Lockwasher	6540.1
Lockwasher	6540.2
Circlip	6544.1
Circlip	6544.2
Circlip	6544.3
Grub screw	6577.1
Grub screw	6577.2
Grub screw	6577.3
Grub screw	6577.4
Grub screw	6577.5
Screwed plug	6578.1
Screwed plug	6578.2
Guide pin	6584
Pin	6810.1
Pin	6810.2
Pin	6810.3
Filter	6900
Coupling half	7200.1
Coupling half	7200.2
Coupling bush	7414