



# CASTLE PUMPS LTD

Your process delivered.

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



## Datasheet

Pump **manufactured in Spain** with materials from own foundry

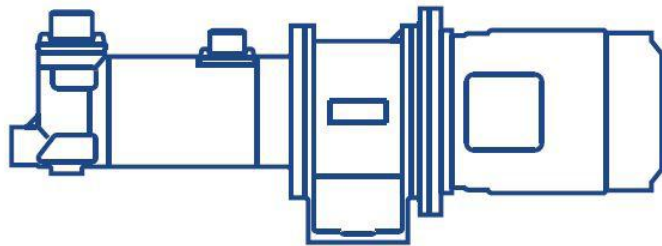
**Additional bearing** in the pump head to share the strain of operation and increase robustness

Available **with brackets** to make pump vertical

Built in **relief valve** for pump protection

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

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



Pump is **reversible** on request

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

**Smaller footprint** than an equivalent performing gear pump

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

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

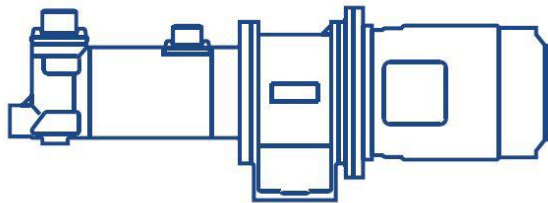
**Spacer coupling** between pump & motor to enable maintenance without having to remove the pump or motor from the pipework first

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

## Series **BT-HH**

### *Triple Screw Pump – High Pressure, Long Coupled*

# BT-HH Triple Screw Pump – High Pressure, Long Coupled



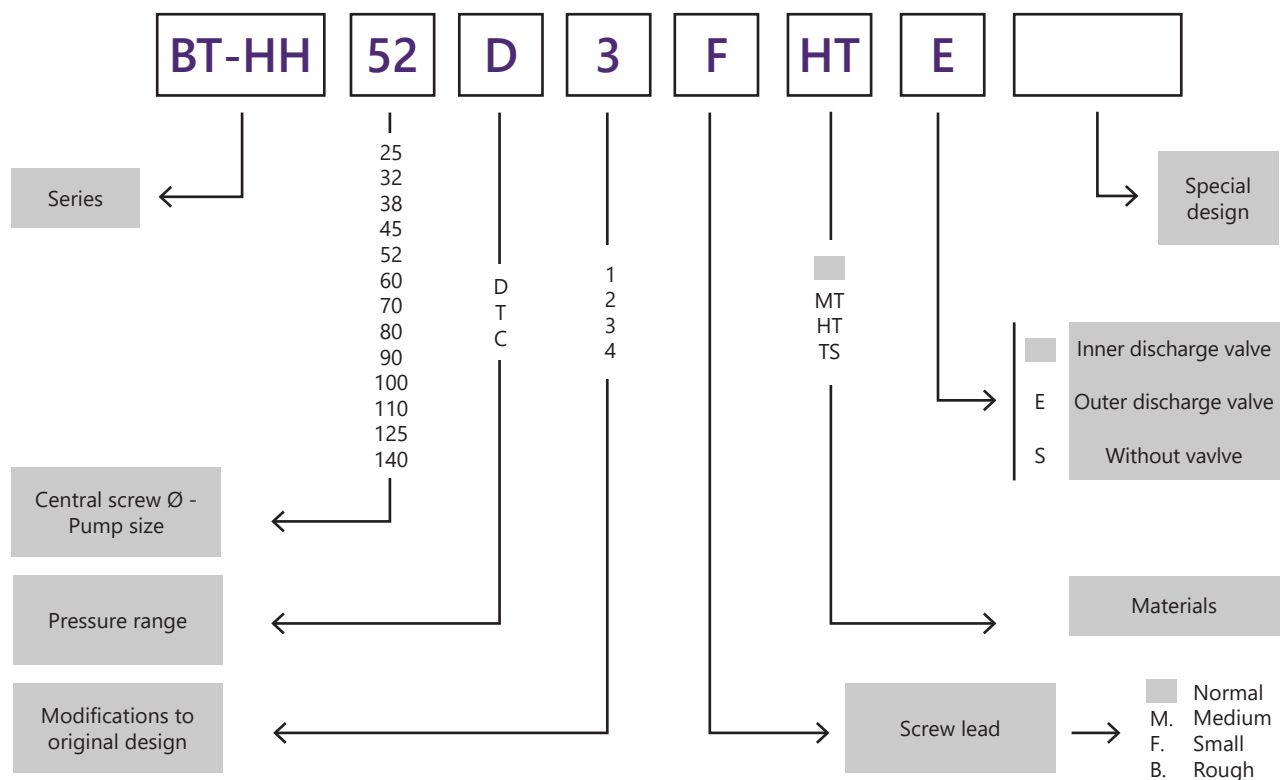
### Performance:

Max Flow rate	30 m <sup>3</sup> /h
Max Pressure	500M
Sizes Available	DN25 - DN65 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 separatin

### 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 pressure capabilities for applications involving difficult suction capabilities and long distance pumping
- 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 30,000 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

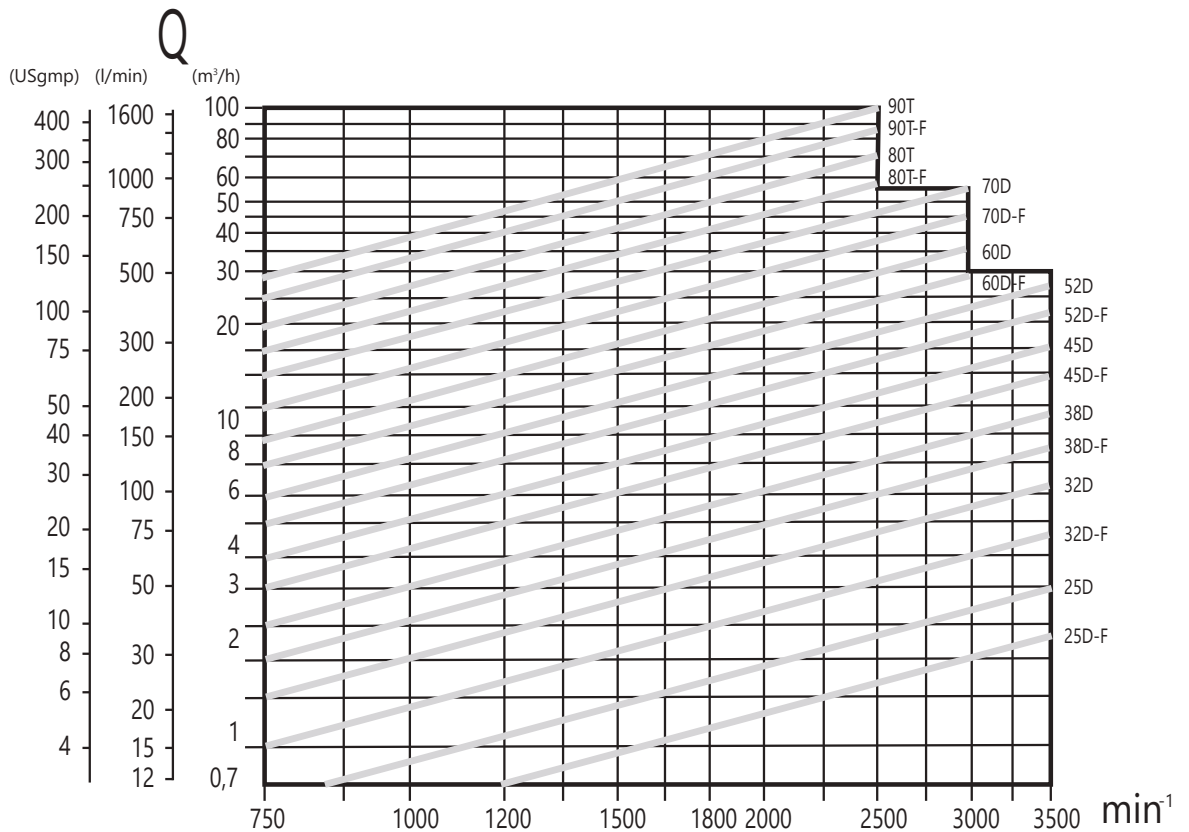
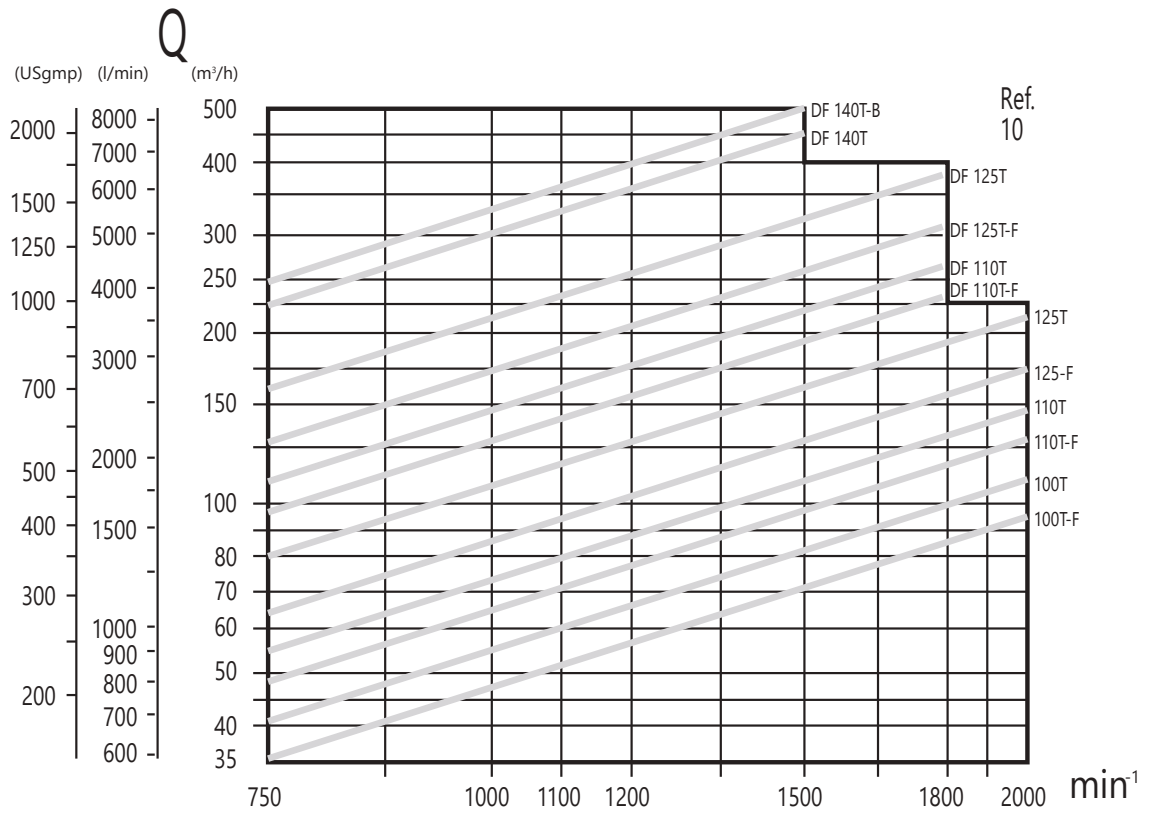


### Materials

	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

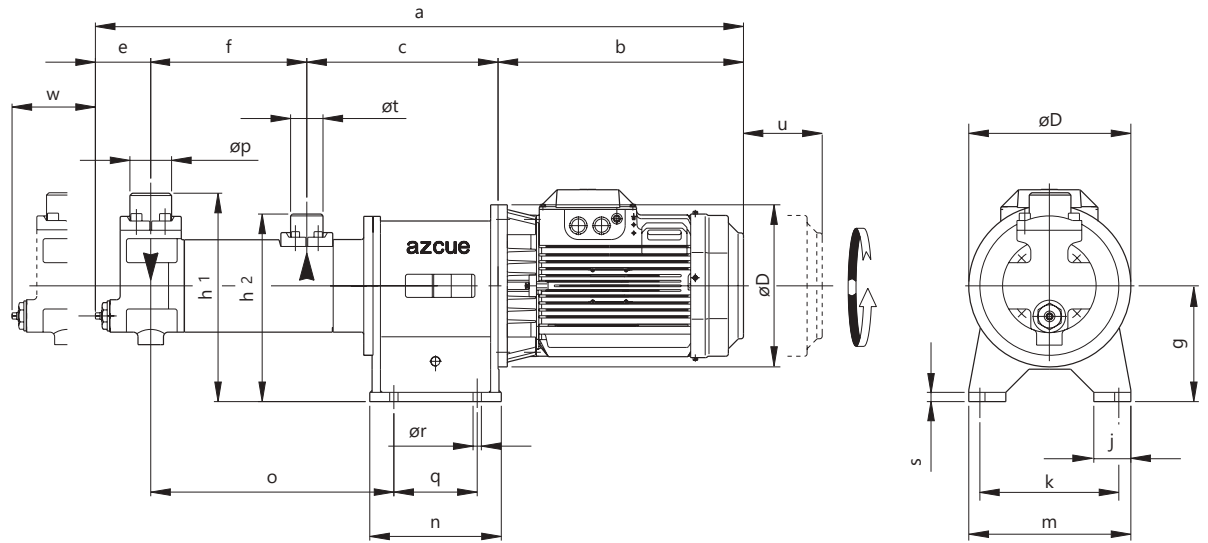


## Performance Curves





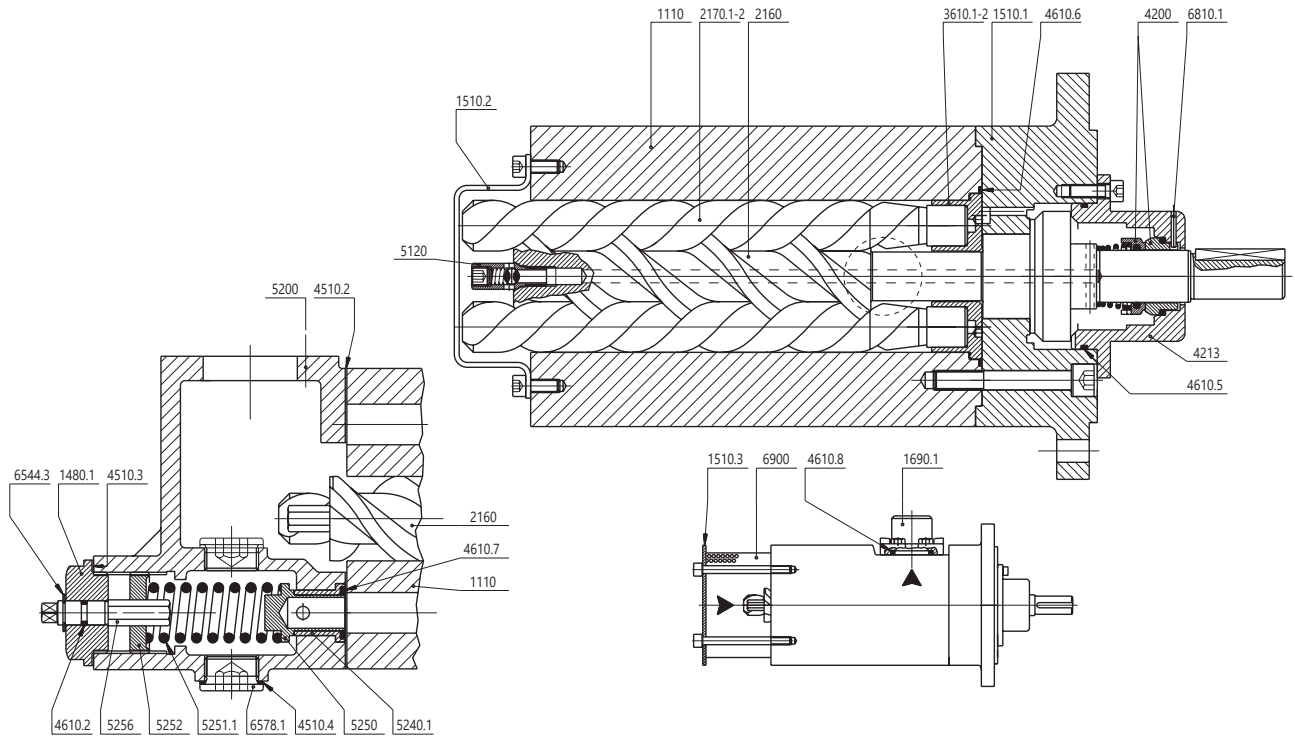
**Dimensions**



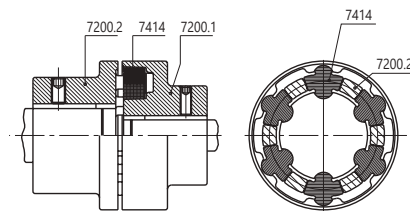
Pump	Type	Motor		a	b	c	D	e	f	g	h <sub>1</sub>	h <sub>2</sub>	j	k	m	n	q	o	r	s	øp	øt	u	w
		R.p.m. / t/min.																						
		1.450	2.900																					
32	90-L	1,5	2,2	813	270	255	200	106	182	160	275	255	48	200	225	120	65	336	14	18	42	35	100	140
	100-LA	2,2	3	853	310																			
	100-LB	3	-	853	310	275	250																	
	112-M	4	4	853	310																			
	132-S	5,5	5,55-7,5	974	385	301	300																	
38	112-M	4	4	919	310	295	250	109	205	160	280	260	48	200	225	135	80	379	14	18	50	42	100	140
	132-S	5,55	5,55-7,5	1020	385	321	300																	
	132-M	7,5	-	1020	385																			
	160-M	11	11-15	1195	530	351	250																	
	160-L	15	18,5	1195	530																			
45	132-M	7,5	-	1089	385	344	300	119	241	190	335	307	48	225	250	145	90	437	14	18	62	50	160	140
	160-M	11	11-15	1264	530																			
	160-L	15	18,5	1264	530	374	350																	
	180-M	18,5	22	1314	580																			
	200-L	30	30	1364	630	374	400																	
52	160-M	11	11-15	1323	530			128	277	190	360	327	48	225	250	145	90	486	14	18	70	62	160	160
	160-L	15	18,5	1323	530	388	350																	
	180-M	18,5	-	1373	580																			
	200-L	30	-	1423	630	388	400																	
	160-L	15	-	1410	530																			
60	180-M	18,5	-	1460	580	413	350	120	337	250	450	405	80	300	350	294	190	525	18	20	90	70	170	180
	180-L	22	-	1460	580																			
	200-L	30	-	1510	630	413	400																	
	225-S	37	-	1605	725	413	450																	
	200-L	30	-	1544	630	426	400																	
70	225-S	37	-	1639	725			112	376	250	476	417	80	300	350	294	190	567	18	20	114	70	170	180
	225-M	45	-	1639	725	426	450																	
	250-M	55	-	1674	730	456	550																	

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

**Sectional Drawing**



**Coupling**



## Sectional Drawing

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