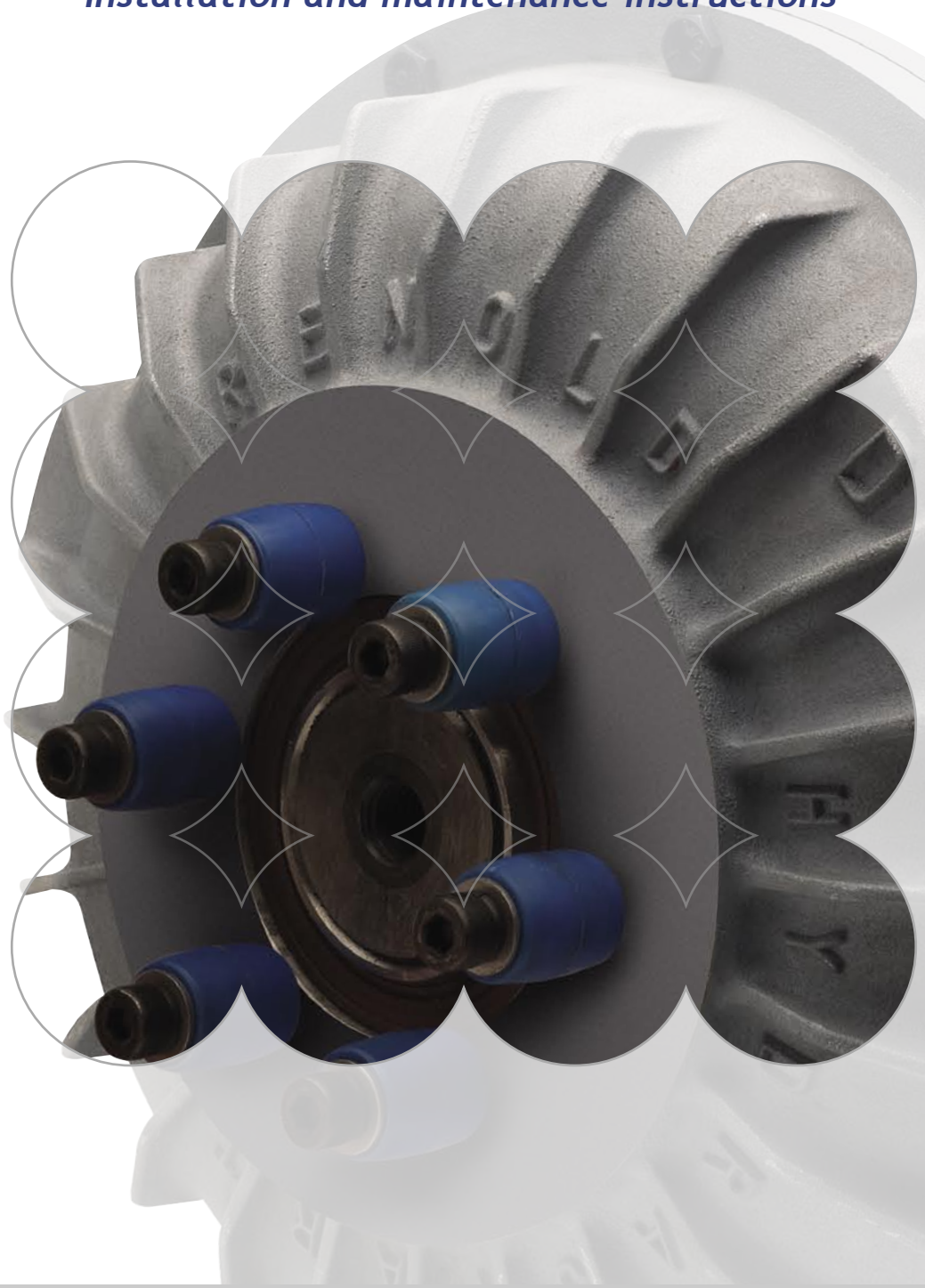
Hydrastart

Installation and maintenance instructions



RENOLD

Superior Coupling Technology

General Notes on Hydrastart Installation

1 Before connecting assembly it is recommended that the moor shaft be coated with either anti-sieze compound or oil.

2 Hydrastart units are despatched without oil. Consult filling instructions before starting drive.

3 Alignment of driving/driven shafts should be checked and true to within 0.13mm. Good alignment will prevent wear of flexible elements.

4 Hydrastart units are machines to suit standard electric motor shafts. The should be attached using a parallel side fitting key and locked in position with a suitable bolt and washer. If the driving shaft does not have a shoulder to locate and fix the Hydrastart, we recommend the use of a suitable spacer to prevent the unit from being drawn too far onto the shaft and fouling the motor and cover.

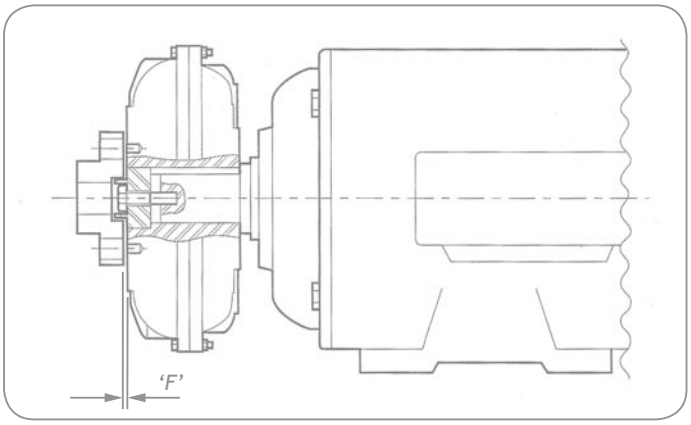
5 Maximum working temperatures should not exceed 90°C. Special Viton seals may be required if the working cycle causes temperatures in excess of this figure. High operating temperatures may be caused by low oil fill, overload/high slip, high ambient temperature, lack of ventilation or long/too frequent starts.

Type HS..PF (Standard Fill) & HS..RPF (Delay & Fill)

Secure the Hydrastart unit to the motor as described in General Note 4. Fit the Pinflex coupling to the driven shaft and align with the driving motor. Leave a gap "F" as shown in Sketch 1, [*Table 1*]. Check angular misalignment by measuring the gap at 90° intervals.

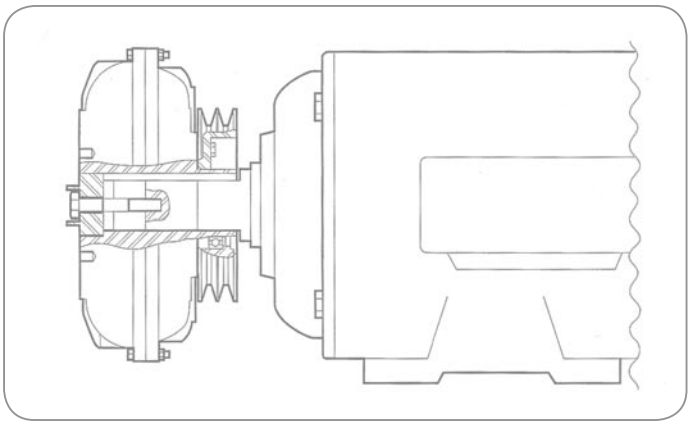
[*Table 1*]

	HS2	HS4	HS6	HS8	HS10	HS11	HS12	HS13
'F'	4	4	5	6	6	7	7	7



Type HS..VP (Standard Fill) & HS..RVP (Delay & Fill)

Secure the Hydrastart unit onto the motor shaft as described in General Note 4. Check the pulley alignment and belt tension to prevent excessive loads on unit bearing.

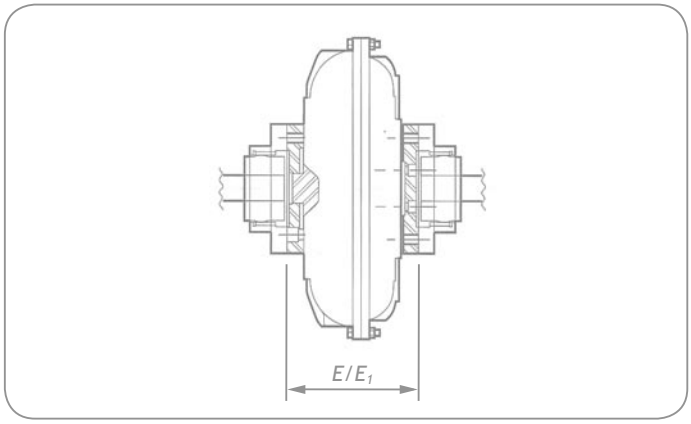


Type HS..GF (Standard Fill) & HS..RGF (Delay & Fill)

Fit flexible gear half couplings to both driving and driven shafts, ensuring outer covers are in place. Align electric motor with driven shaft, checking 'Distance Between Shaft Ends (E or E_1) from [*Table 2*]. Bolt gear coupling flanges to Hydrastart and pack with suitable grease.

[*Table 2*]

		HS2	HS4	HS6	HS8	HS10	HS11	HS12
HS.. GF	E	132	148	171	228	257	272	300
HS.. RGF	E_1	-	-	-	306	335	363	408

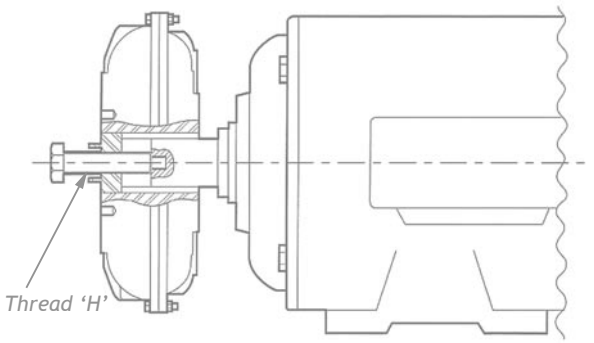


Disassembly (All Types)

Remove the fixing bolt and washer holding the unit onto the motor shaft. Using a suitble threaded bar, jack the unit off the shaft.

[*Table 3*]

	HS2	HS4	HS6	HS8	HS10	HS11	HS12	HS13
'H'	0.624 UNC	0.625 UNC	0.750 UNC	1.000 UNC	1.000 UNC	1.000 UNC	1.250 UNC	1.250 UNC



Oil Filling

Hydrastart units are normally supplied without oil.

- Recommended oils are:
- Shell Telus 32
- Mobil DTE 24
- Total Azolla ZS32
- Fina Hydraw 32
- BP Energol HLP32
- Esso Nuto H32
- Chevron Hydraulic Oil 32

The optimum fill for any given Hydrastart application is that which allows the driven load to be smoothly accelerated from rest in a reasonable time (5-7 seconds for standard fill and 12-15 for delay fill). To achieve this condition, fill the coupling to the minimum oil level shown in [*Table 4*] and gradually increase the quantity of oil until the desired acceleration is obtained. This will provide the best possible motor overload protection. When the optimum oil fill has been achieved, remove the filler and fusible plugs in turn (taking care to position them at the highest point to avoid oil loss) and apply thread sealant before finally tightening.

Under no circumstances should the maximum stated quantity of oil be exceeded.

Oil Fill Levels (Litres) [*Table 4*]

		HS2	HS4	HS6	HS8	HS10	HS11	HS12	HS13
HS	MAX	1.1	1.9	3.2	6.2	11.6	16.2	24.6	37.0
STD	MIN	0.8	1.6	2.7	4.9	8.8	12.4	19.4	30.0
HS	MAX	-	-	-	6.4	11.9	16.7	25.3	38.0
STD	MIN	-	-	-	5.1	9.1	12.9	20.2	31.0