



# TRANSFILLE industrial & marine

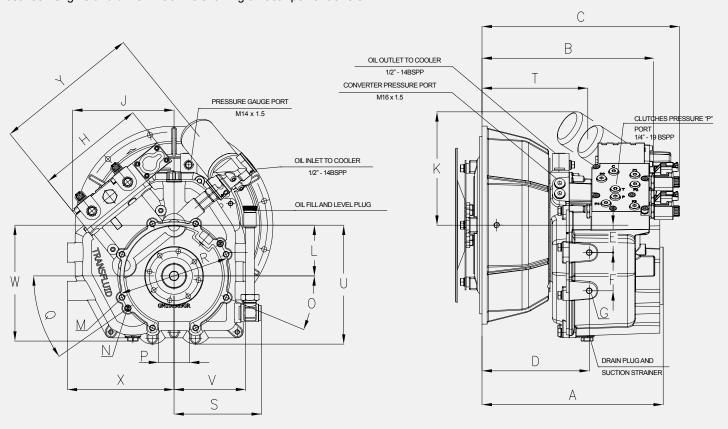




**POWER SHIFT TRANSMISSIONS** 

The **REVERMATIC** is a Power shift transmission specifically designed for industrial applications requiring quick directional reversing and smooth clutch engagement.

It consists of an hydraulically activated gear unit, the forward and reverse multiple disc clutch assemblies are mounted on the lay shaft and input shaft respectivly. They are operated by the hydraulic selector, electrically actuated, with a patented built-in "soft shift" device. The transmission input shaft is connected to engine flywheel through a single stage torque converter which is selected according to the engine rating and required transmission vehicle performances, thanks to its characteristics it eliminates the mechanical connection between engine and driven machine allowing smooth power transfer.

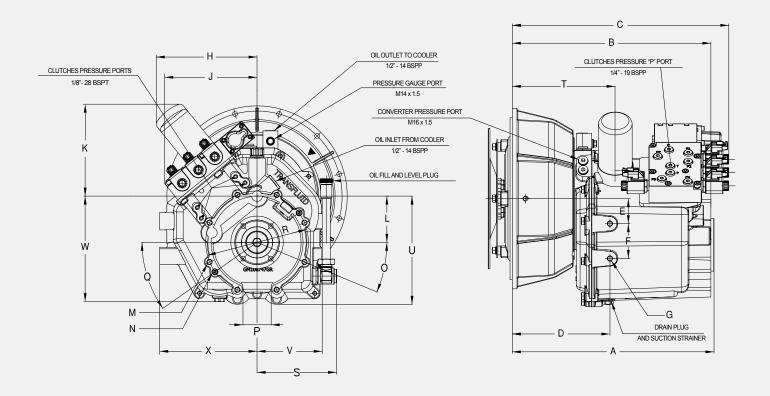


											DIME	NSIO	NS mm	(in	ch)												
FLANGE OUTPUT	Α	В	O	D	Е	F	G		Н	J	К	L	М	1	N		0	Р	Q	R	S	Т	U	V	×	Х	Y
							dia x deplh	Nr					dia x deplh	Nr	dia x deplh	Nr											
DIN 120 SAE 1410			403 (15.866)	219 (8.622)	56 (2.205)		M12X25 (M12x0.98)	4		207 (8.15)	231 (9.094)		M12X21 (M12x0.83)	8	12X12 (0.472x0.472)	2	22.5°	63 (2.48)	35°	230 (9.055)	178 (7.008)	216 (8.504)	243 (9.567)		236.5 (9.311)		297 (11.693)

					TECH	NICAL DATA				
RATIO FWD = REV	WEIGHT w/o oil	OIL QTY.	POWER	MAX TORQUE (TURBINE)	SPEED	SOLENOIDS	OPERATING PRESSURE OIL	FILTER	OIL COOLER	MAX OPERATING TEMP.
0.85 : 1 1.04 : 1 1.40 : 1 1.88 : 1 2.25 : 1	108 kg (2238 lb)	7 l (1.85 gal)	OFF ROAD 75 kW (100 hp) ON ROAD 95 kW (125 hp)	700 Nm (516 lbft)	3000 rpm	12/24 Vdc 27 W	14 bar (203 psi)	25 micron	max 24 kW (32 hp) 3 bar (43 psi) 1.5 l (0.4 gal) /min/100 rpm	100° C (212° F)



The **RANGERMATIC** is a multi-speed power shift transmission available in one, two or three speeds forward and one or two speeds reverse. Designed for industrial applications it provides quick and smooth reversing and easy gear selection on the go. Consisting of a double gear train, actuated by self-contained hydraulic clutches, it connects to the engine through a wide range of hydrodynamic single stage torque converters. The torque converter is selected to optimize the driven machine performances. Additionally it eliminates the mechanical connection between the engine and the driven machine allowing smooth power transfer. The hydraulic clutches are operated by a hydraulic selector, electrically actuated, with built-in patented "soft shift" device.



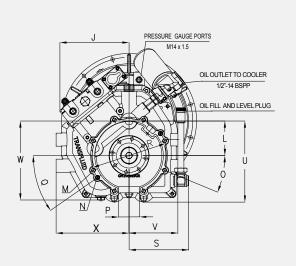
												DIMEN	ISION	S mm (i	nch	1)											
	FLANGE		В	С	D	E	F	G		н	J	К	L	М		N		0	Р	Q	R	S	Т	U	٧	W	х
								dia x deplh	Nr					dia x deplh	Nr	dia x deplh	Nr										
	DIN 120			485		56 (2.205)		M12x25 (M12x0.98)	4	229	207			IVIIZXZI	8 at	12x12 (0.472x0.472)	2 at	22.5°	63 (2.480)	35°	230 (9.055)	178	230	243	146	237	218 (8.583)
4-10	JAL 1410	(11.104)	(17.500)	(13.034)	(0.010)	(2.203)	(3.071)	(IVI 12XU.30)		(3.010)	(0.150)	(0.110)	(4.073)	(IVI 12XU.03)	45°	(0.41230.412)	180°		(2.400)		(8.000)	(1.000)	(3.000)	(8.501)	(3.740)	(8.551)	(0.303)

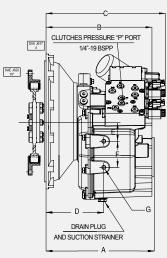
		TECHINIC	CAL DATA		
	RATIO			WEIGHT w/o oil	
31-700 Version	21-700 Version	22-700 Version	31-700 Version	21-700 Version	22-700 Version
2.75-1.882-0.865 FWD 1.882 REVERSE	2.75-1.882 FWD 1.882-0.865 FWD 1.882 REVERSE	1.882-0.865 FWD 1.882-0.865 REVERSE	123 kg (271 LB)	117 kg (258 LB)	120 kg (265 LB)

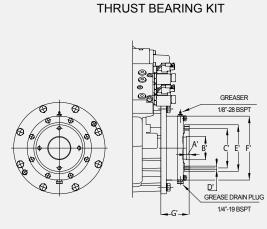
				TEC	HNICAL DATA			
OIL QTY.	POWER	MAX TORQUE (TURBINE)	MAX SPEED	SOLENOIDS	OIL OPERATING PRESSURE	FILTER	OIL COOLER	MAX OPERATING TEMP.
8 I (2.11 gal)	OFF ROAD 75 kW (100 hp) ON ROAD 95 kW (125 hp)	700 Nm (516 lbft)	3000 rpm	12/24 Vdc 27 W	14 bar (203 psi)	25 micron	max 24 kW (32 hp) 3 bar (43 psi) 1.5 l (0.4 gal) /min/100 rpm	100° C (212° F)

## REVERMATIC 11-700 RBD SPD11S "PTO" for Revermatic & Rangermatic

**REVERMATIC 11-700 RBD**: Suitable for industrial applications and as marine transmission when combined with the thrust bearing kit mounted on the output shaft assembly and suitable marine oil cooler. It can be installed on engines with flywheel and flywheel housing according to SAE J 617, J 620 standard. The use of patented built in soft shift device allows smooth shifting from forward to reverse rotation for comfortable docking and manouvering. The RBD elastic coupling dampens torsional vibration and compensate for radial and angular misalignments.





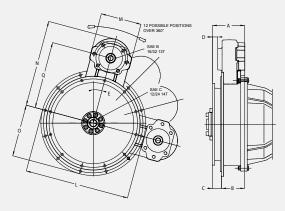


		TE	CHNICAL	_ D/	ATA			Max Thrust
A'	B'	C,	D'		E'	F'	Ĝ	14000
7.5 (0.295)	63.5 <sup>HB</sup> (2.5)	108 <sup>±0.2</sup> (4.25 ±0.006)	M10x12.5 (M10x0.492)	4	127 (5)	174 (6.85)	77 3.03)	

										DIMEN	SIONS	mm (incl	h)											
SAE INPUT	FLANGE OUTPUT	Α	В	O	D	Е	F	G	l si.	J	L	М	lar.	N	la.	0	Р	Q	R	S	U	<	W	х
								dia x deplh	Nr			dia x depih	INT	dia x deplh	Nr									
4-10"	DIN 120 SAE 1410		316.8 (12.472)	357 (14.055)	172.8 (6.803)	56 (2.205)	78 (3.071)	M12x25 (M12x0.98)	4	207 (8.150)	103.5 (4.075)		at	12x12 (0.472x0.472)	at	22.5°	63 (2.480)	35°	230 (9.055)	178 (7.008)	243 (9.567)	146 (5.748	236.5 (9.311)	218 (8.583)

					TE	CHNICAL DATA				
RATIO FWD = REV	WEIGHT w/o oil	OIL QTY.	POWER	MAX TORQUE	MAX SPEED	SOLENOIDS	OPERATING PRESSURE OIL	FILTER	OIL COOLER MARINE <sup>(1)</sup>	MAX OPERATING TEMP.
0.85 : 1 1.04 : 1 1.40 : 1 1.88 : 1 2.25 : 1	INDUSTRIAL 85 kg (187 lb) MARINE 100 kg (220 lb)	3 I (0.8 gal)	INDUSTRIAL 130 kW (175 hp) MARINE 140 kW (188 hp)	560 Nm (442 lbft)	INDUSTRIAL 3000 rpm MARINE 3500 rpm	12/24 Vdc 27 W	12 bar (174 psi)	25 micron	max 10 kW (13 hp) 3 bar (43 psi) 1.5 l (0.4 gal) /min/100 rpm	100° C (248° F)

<sup>(1)</sup> For industrial application see pag. 1



**SPD11ST:** high capacity pump drive installed between the engine flywheel housing and Revermatic or Rangermatic transmission (with torque converter). Compact in length, the SPD11S can be rotated 360° to provide the user the best pump pad position for the application.

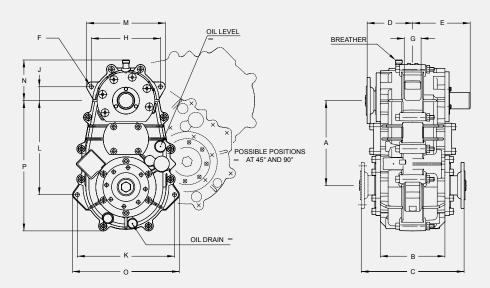
				DIME	NSIONS	mm (ir	nch)				
SAE INPUT	SAE OUTPUT FOR TRANSMISSION	Α	В	С	D	Е	L	М	N	0	Q
3-11"	4-10"	139.6 (5.496)	100 (3.937)	39.6 (1.559)	23.2 (0.913)	15°	451 (17.756)	176.5 (6.949)	374 (14.724)	226 (8.898)	290 (11.417)

	TEC	HNICAL D	DATA	
MAX WEIGHT	MAX INPUT TORQUE	HEAD TORQUE	MAX SPEED	GEAR RATIO
50 kg (110 lb)	860 Nm (634 lbft)	350 Nm (258 lbft)	3000 rpm	0.93



**DROP BOX**: Can be **flange mounted** or **remote mounted** to Revermatic or Rangermatic. Drop box can be rotated 360° to allow the user the optimal positioning of the output flanges available for 2wd or 4wd. The optional **SL750 PARKING BRAKE** is spring loaded, oil pressure released. It is operated by transmission oil pressure through a dedicated solenoid valve.

The SL750 doesn't require a dedicated oil source or specific control, but it can also be operated from an external source. When equipped with the Rangermatic or Revermatic, the SL750 is installed with steel pipes for flange mounting and rubber hoses for remote mounting.



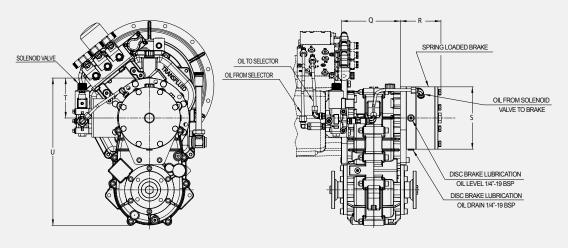
						D	MEN	SIC	NS mr	n (inch	1)						
-	FLANGE OUTPUT	Α	В	С	D	Е	F		G	Н	J	К	L	М	N	0	Р
DIN 120 SAE 1410	DIN 120 SAE 1410	225 (8.858)	168 (6.614)	268 (10.551)	120 (4.016)	144.5 (5.689)	10.5 (0.41)	4	68 (1.575)	180 (7.087)	36 (1.417)	253 (9.961)	245 (9.646)	205 (8.071)	107 (4.213)	278 (10.945)	339 (13.346)

		TECH	NICAL	DATA		
WEIGHT w/o oil		OUTPUT ROTATION	MAX TORQUE	MAX INPUT SPEED	MAX POWER	GEAR RATIO
30 kg	31	-INDLIT	1700 Nm	3500 rpm	120 1/1/	1.15
(66 lb)	(0.8 gal)	-IINFUT	(1480 lbft)	3300 Ipili	130 KW	2.4

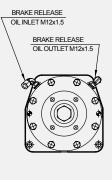
1.6 2 2.9 3.3

3.9

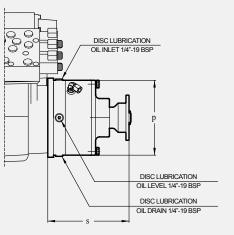
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BRAKE on the drop box



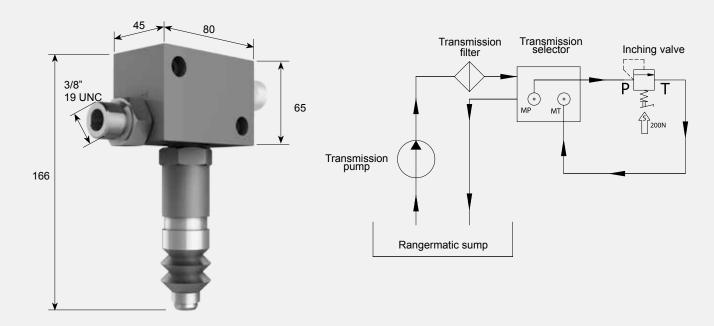
BRAKE on the Rangermatic



DIMENSIONS mm (inch)						
Q	R	s	Т	U	٧	SOLENOID VALVE
184 (7.244)	127 (5.000)	195 (7.677)		461.5 (18.169)		12/24 Vdc 38 W

BRAKE Technical data							
	WEIGHT	OIL	TRANSMISSION OIL PRESS. SOURCE		EXTERNAL OIL PRESS. SOURCE		
	w/o oil	QTY.	STATIC TORQUE	OPERAT. PRESS	STATIC TORQUE	MIN.OPERAT PRESSURE	MAX.OPERAT. PRESSURE
	18 kg (39.7 lb)	0.65 l (0.17 gal)	590 Nm (435 lbft)	12 bar (174 psi)	1670 Nm (1232 lbft)	23 bar (334 psi)	300 bar (4351 psi)

**INCHING CONTROL:** Designed for quick and easy installation Transfluid's inching control manifold can be installed next to the brake pedal eliminating cables and levers or the most suitable remote location. The connection with transmission is with simple hydraulic hoses.



**SHIFTER:** Equipped with switches that interface with the solenoids on the transmission, the **Shifter** is designed to integrate the transmission controls with the electrically actuated hydraulic selectors on Rangermatic and Revermatic transmissions. Providing ease of use and quick installation the Shifter contains the required switches to correspond with each available gear of transmission. Additionally in application where the SL750 parking brake is used, the shifter comes equipped with a P(ark) position.



Model	31-700	21-700	22-700	
Automatic w/TSC	PRND21	PRND21	1	
Manual	PRN123	PRN123	P21N12	

### TSC Transmission Shifting Control DOCUMENTATION

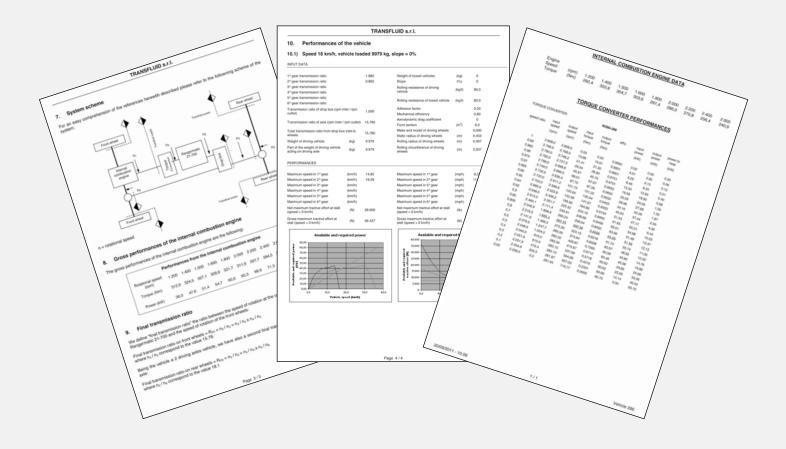


**TSC:** Transmission Shifting Control is a Transfluid's hardware and software original design, specifically made for easy and smooth automatic gear shifting of the three speed Rangermatic transmission. It can be connected to Transfluid's or Customer's shifter. It doesn't need any throttle pedal or engine speed signal; sensors are already integrated inside transmission casing.



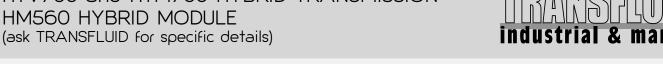
Weight	0.4 kg (0.88 lb)	Voltage	12/24 Vdc	
Dim. mm (inch)	134.6x153.2x52.2	Operating Temp.	-30°C+80°C (-22°F+176°F)	
	(5.3"x6.03"2.05")	Protection	IP67	
Material	30% Glass Polymer	Harness Interface	48 pin	
Communication	CAN 2.0B Extended	CAN Open		

Predictable performance has been achieved by dedicated development of a comprehensive Power Shift Transmission family. All new applications of a Transfluid Power shift transmissions are supported by in-depth performance calculations. Transmission and vehicle performances are known before the machine is placed in the field.



### HTV700 and HTM700 HYBRID TRANSMISSION HM560 HYBRID MODULE







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