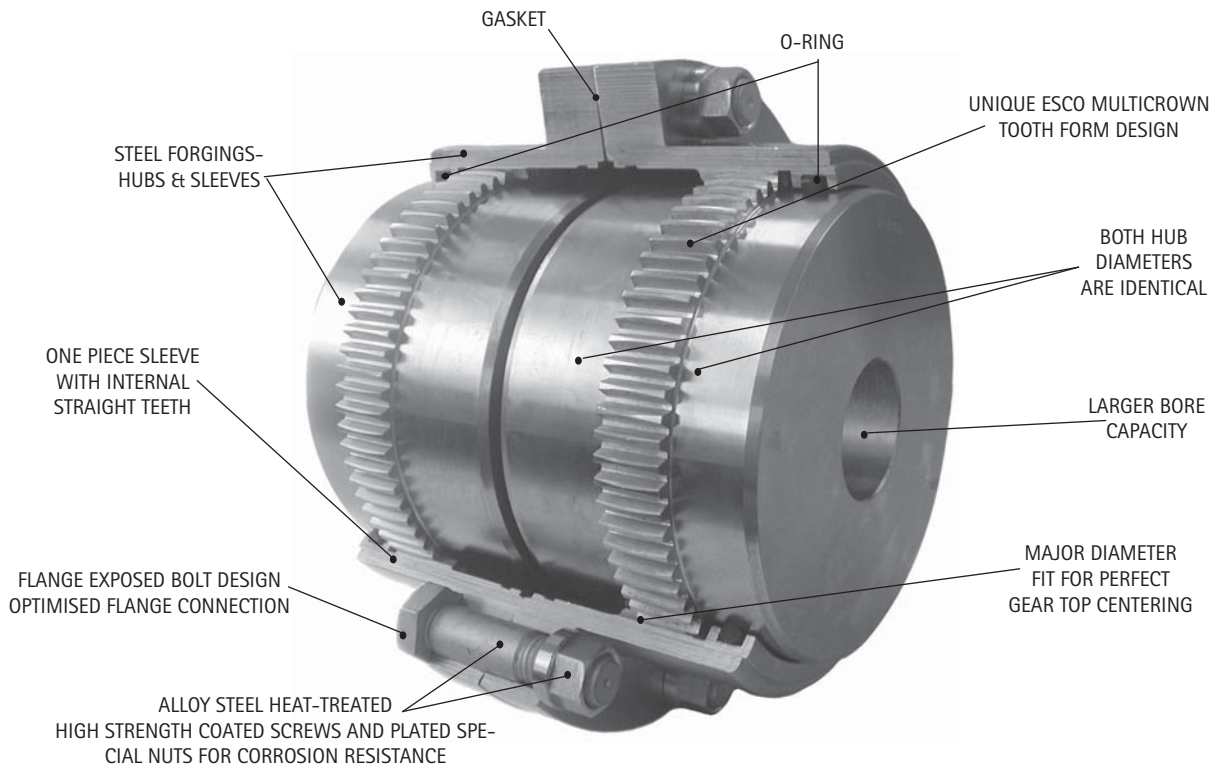


# SERIES F

WITH ESCO MULTICROWN TOOTH FORM FOR LONG LIFE

Maximum torque: up to 5 040 000 Nm – Bore: up to 1 130 mm



- LOWER STRESSES

The **ESCO MULTICROWN** tooth form is a curve with constantly changing radii of curvature. The tooth contact area under misaligned conditions has a much larger radius of curvature than conventional crowning. The contact area therefore is larger thus reducing the surface stresses.

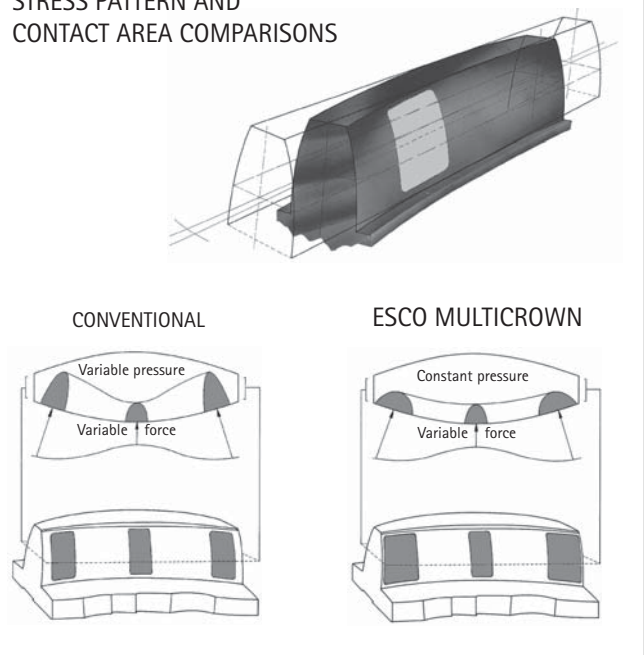
- CONSTANT VELOCITY POWER TRANSMISSION

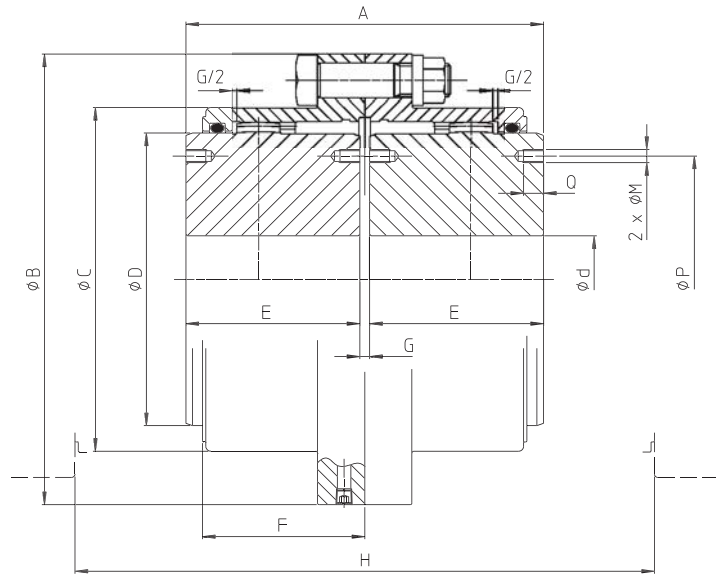
ESCO generates the **ESCO MULTICROWN** tooth in such a way that the necessary characteristics for homocinetic conjugate tooth action are perfectly achieved.

- LESS BACKLASH

The **ESCO MULTICROWN** tooth design requires less backlash for a given angle of misalignment than the conventional crowning, thus reducing shocks in reversing application.

STRESS PATTERN AND CONTACT AREA COMPARISONS

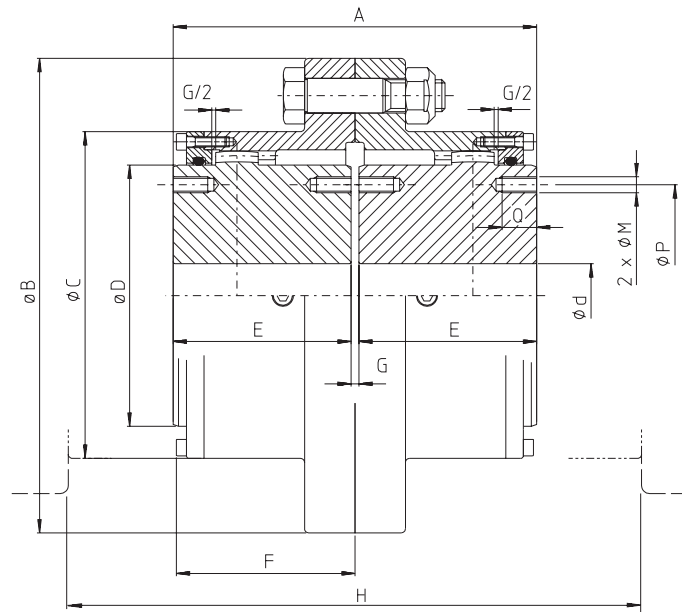




max. 1,5°

←A150		Type FST													
		45	60	75	95	110	130	155	175	195	215	240	275		
	d Ø nominal max.	mm	45	60	75	95	110	130	155	175	195	215	240	275	
	d Ø min.	mm	0	0	0	0	0	55	65	80	90	100	120	150	
	* d Ø max.	mm	50	64	78	98	112	132	158	175	198	217	244	275	
	Tn	Nm	1300	2800	5000	10000	16000	22000	32000	45000	62000	84000	115000	174000	
	Tp		2600	5600	10000	20000	32000	44000	64000	90000	124000	168000	230000	348000	
	3.1	tr/min omw/min	5000	4400	4000	3600	3350	3100	2800	2700	2550	2450	2300	2150	
	3.2	rpm min <sup>-1</sup>	7000	6200	5650	5100	4700	4350	4000	3800	3600	3450	3300	3050	
	—	degré graad degree Grad	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	
	—	mm: ±	0,35	0,4	0,5	0,6	0,7	0,9	1	1,1	1,2	1,4	1,5	1,7	
	4	J (WR <sup>2</sup> )	0,005	0,015	0,040	0,105	0,191	0,430	0,842	1,320	2,448	3,716	5,384	10,872	
	5	kg	4,1	8,0	14,6	26,1	38,8	59,2	89,4	117,5	167,1	222,4	275,0	413,6	
	6	dm <sup>3</sup>	0,05	0,07	0,13	0,21	0,36	0,52	0,80	0,98	1,51	2,02	2,43	3,29	
mm: ±	A	mm	89	103	127	157	185	216	246	278	308	358	388	450	
	B	mm	111	141	171	210	234	274	312	337	380	405	444	506	
	C	mm	80	103,5	129,5	156	181	209	247	273	307	338	368	426	
	D	mm	67	87	106	130	151	178	213	235	263	286	316	372	
	E	mm	43	50	62	76	90	105	120	135	150	175	190	220	
	F	mm	41	47	58,5	68,5	82	98	108,5	121	132	151,5	165	183,5	
	G	mm	3	3	3	5	5	6	6	8	8	8	8	10	
	H	10	mm	147	166	212	249	295	350	392	440	484	562	616	688
	M	mm									M 12	M 16	M 16	M 16	M 20
	P	mm									205	226	250	276	330
Q	mm									18	24	24	24	30	

\* Consult us



max. 1,5°

←A150		Type FST																
		280	320	360N	400N	450N	500	530	560	600	660	730	830	900	1000	1060	1130	
	d Ø nominal max.	mm	280	320	360	400	450	500	530	560	600	660	730	830	900	1000	1060	1130
	d Ø min.	mm	180	200	220	260	280	300	330	350	380	420	480	540	580	640	680	740
	* d Ø max.	mm	310	340	375	420	470	500	530	560	600	660	730	830	900	1000	1060	1130
	Tn	Nm	244000	290000	370000	450000	560000	630000	750000	860000	1020000	1290000	2020000	2450000	3070000	3610000	4390000	5040000
	1m Tp	Nm	488000	580000	740000	900000	1120000	1260000	1500000	1720000	2040000	2580000	4040000	4900000	6140000	7220000	8780000	10080000
	min.	tr/min omw/min rpm	1900	1800	1500	1400	1300	1150	1050	900	800	550	450	380	325	280	240	220
	max.	tr/min omw/min rpm	1900	1800	1500	1400	1300	1150	1050	900	800	550	450	380	325	280	240	220
	α	degré graad degree Grad	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75
			2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75	2x0,75
		mm: ±	2	2,1	2,3	2,5	2,7	2,8	3	3,2	3,4	3,6	3,7	4	4,4	4,8	5,2	5,4
			2	2,1	2,3	2,5	2,7	2,8	3	3,2	3,4	3,6	3,7	4	4,4	4,8	5,2	5,4
	J	kgm²	20,1	31	45	68	105	164	228	313	430	685	1161	1756	2580	3690	5090	6730
	(WR²)		20,1	31	45	68	105	164	228	313	430	685	1161	1756	2580	3690	5090	6730
		kg	591	760	932	1180	1532	1950	2330	2840	3370	4370	6110	7810	9730	11860	14220	16380
			591	760	932	1180	1532	1950	2330	2840	3370	4370	6110	7810	9730	11860	14220	16380
		dm³	6,44	7,6	11	12	16	18	23	25	29	39	57	77	105	130	160	180
			6,44	7,6	11	12	16	18	23	25	29	39	57	77	105	130	160	180
mm: ±	A	mm	570	597	623	673	713	759	809	859	905	945	1105	1205	1285	1365	1405	1425
	B	mm	591	640	684	742	804	908	965	1029	1092	1200	1330	1440	1545	1650	1750	1860
	C	mm	472	518	562	620	682	733	787	841	892	997	1130	1240	1345	1450	1550	1660
	D	mm	394	432	480	530	594	629	673	724	772	870	965	1062	1156	1254	1346	1448
	E	mm	280	292	305	330	350	370	395	420	440	460	540	590	630	670	690	700
	F	mm	225	234	251	269	283	301	318	333	361	375	408	448	483	528	538	548
	G	mm	10	13	13	13	13	19	19	19	25	25	25	25	25	25	25	25
	H	10 mm	632	660	705	745	770	825	870	900	990	1020	1130	1210	1290	1400	1420	1440
	M	mm	M 20	M 20	M 24	M 24	M 24	M 42	M 42	M 42	M 48	M 48	M 48	M 48	M 48	M 48	M 48	M 48
	P	mm	336	377	420	480	544	568	600	642	680	765	860	950	1040	1130	1230	1300
	Q	mm	30	30	40	40	40	76	76	76	82	82	82	82	82	82	82	82

\* Consult us