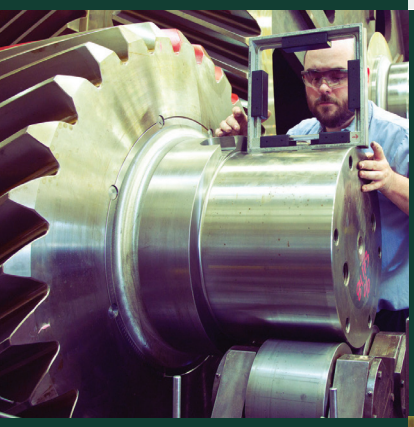
LARGE BORE GEAR COUPLINGS

Delivering the Difference with the company most qualified to handle all your gearing needs.

HORSBURGH & SCOTT
DELIVERING THE DIFFERENCE



H&S LARGE-BORE GEAR COUPLINGS

16 SIZES:
No. 8HS to No. 30HS

BORE SIZES:
8” to 43”

TYPES:
Double engagement (Full Flex)
Single engagement (Flex-Rigid)

HP RATINGS:
2000 to 74,000 HP per 100 RPM

TORQUE RATINGS:
1.3 to 47 million inch-lbs.

Rugged Large-Bore Gear Couplings for Heavy Industry

Horsburgh & Scott large-bore gear couplings provide reliable transmission of high torques at low speeds, plus maximum misalignment capability between driving and driven shafts.

Each is engineered, built and quality checked to ensure long coupling life, trouble-free operation.

GEAR TEETH: Flexible hub teeth, crown hobbed with 20° pressure angle full depth teeth, prqvide high capacity under misalignment condi tions. Three surfaces (tip, flank, and root) are crowned. Internal teeth are generated on precision gear shap ing machines.

MATERIALS: Hubs and sleeves are machined from forged medium carbon steel as standard. Heat treated alloy steel can be furnished as an option.

FASTENERS: All cap screws are Grade 5 material. Center flange utilizes machined fitted bolts.

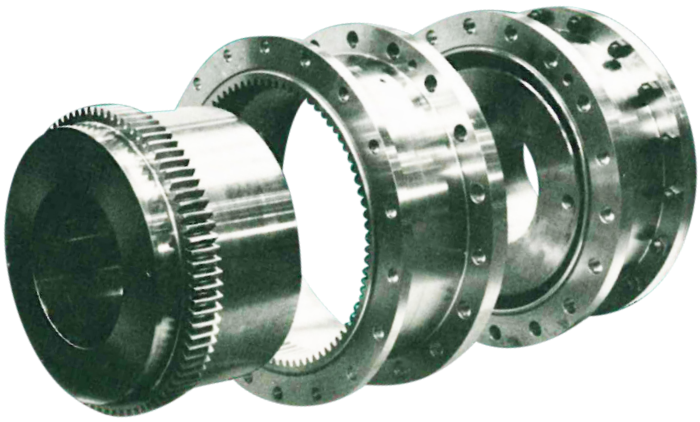
SEALS: “O” ring seals at center flange, end flanges, and hub.

LUBRICATION: Two lubrication plugs @ 180° are provided in each flex sleeve. Grease purge holes in end plates allow complete lubrication.

INTERCHANGEABILITY: Horsburgh & Scott coupling halves can be manufactured to be interchangeable with other industry standard couplings.

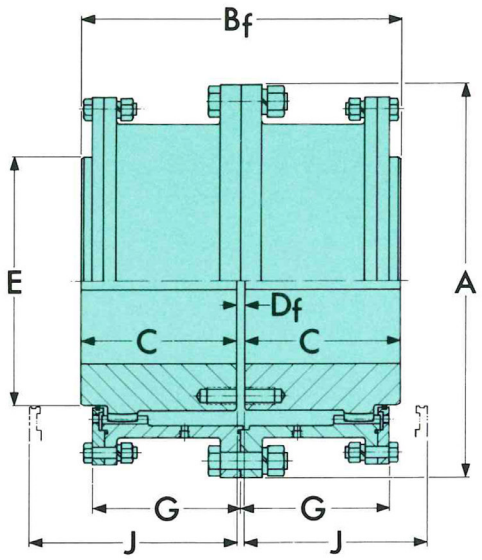
RATINGS AND SIZE SELECTION: Tabulation on facing page provides mechanical ratings for all sizes in HP per 100 RPM.

When selecting a coupling, it is necessary to apply a service factor to adjust the rating for the type of application and duty cycle. Industr standard service factors may be used, or consult H&S for recommendations.



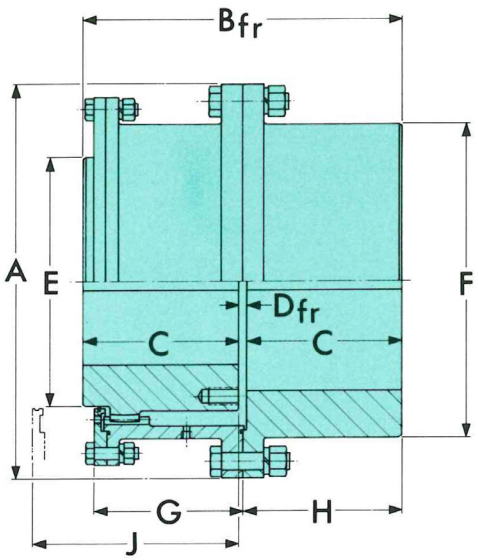
Ratings and Dimensions

FULL-FLEX COUPLING (DOUBLE ENGAGEMENT)



(J) = Alignment Clearance

FLEX-RIGID COUPLING (SINGLE ENGAGEMENT)



(J) = Alignment Clearance

COUPLING SIZE		8HS	9HS	10HS	11HS	12HS	13HS	14HS	15HS	16HS	18HS	20HS	22HS	24HS	26HS	28HS	30HS
RATING: HP/100 RPM		2000	2800	3800	5200	6600	8200	9900	12000	14000	19000	26000	32000	41000	51000	61000	74000
MAXIMUM SPEED: RPM		1750	1550	1450	1330	1200	1075	920	770	650	480	370	290	270	250	230	220
FLEX HUB-Max. Bore with 2 Keys		11.00	12.00	13.50	15.25	16.75	18.00	19.50	21.00	23.00	25.75	28.75	31.50	34.50	37.25	40.25	43.00
RIGID HUB-Max. Bore with 2 Keys		13.50	15.00	16.00	17.50	19.50	21.50	22.50	24.50	25.75	29.00	32.00	36.00	38.00	41.50	44.50	48.00
DIMENSIONS	A	23.25	26.00	28.00	30.50	33.00	35.88	38.00	40.50	43.75	48.00	53.50	59.50	64.25	68.75	73.50	77.75
	Bt	20.00	22.25	24.50	26.75	28.25	30.00	31.75	33.75	35.75	37.00	43.25	47.00	50.50	54.00	55.50	57.00
	Btr	20.12	22.31	24.62	26.88	28.38	30.00	31.75	33.75	35.75	37.00	43.25	47.12	50.62	54.12	55.62	57.12
	C	9.81	10.88	12.00	13.12	13.88	14.62	15.50	16.50	17.38	18.00	21.12	23.00	24.75	26.50	27.25	28.00
	Dt	.38	.50	.50	.50	.50	.75	.75	.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Dtr	.50	.56	.62	.62	.62	.75	.75	.75	1.00	1.00	1.00	1.12	1.12	1.12	1.12	1.12
	E	14.00	15.50	17.50	19.50	21.50	23.00	25.00	27.00	29.00	33.00	36.50	40.00	44.50	48.50	52.50	56.50
	F	17.75	20.00	20.88	23.00	25.50	27.88	29.50	32.00	34.88	39.12	43.12	49.00	51.75	56.00	60.25	64.50
	G	9.56	10.44	11.56	12.69	13.44	14.25	14.88	16.06	16.50	17.12	20.25	22.25	23.88	25.50	26.25	27.00
	H	10.12	11.19	12.38	13.50	14.25	15.00	15.88	16.88	17.88	18.50	21.62	23.62	25.38	27.12	27.88	28.62
	J	11.81	12.88	14.00	15.12	15.88	17.12	18.00	19.00	19.75	20.50	25.00	27.00	28.50	30.50	31.25	31.50

MISALIGNMENT CAPABILITY IS ±¾0 PER FLEX HALF

DIMENSIONS ARE FOR REFERENCE AND SUBJECT TO CHANGE. USE CERTIFIED DRAWINGS FOR CONSTRUCTION.

Delivering the Difference for Higher Productivity

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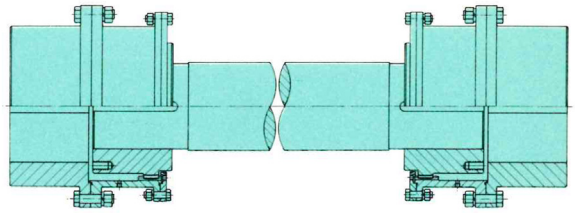
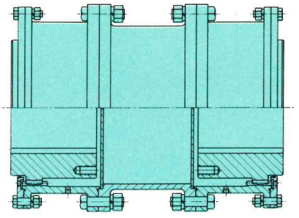
Coupling Options

Horsburgh & Scott can readily provide other coupling design arrangements for both Double engagement (Full-Flex) and Single engagement (Flex-Rigid) types.



FLOATING SHAFT ARRANGEMENT connects two widely separated machines. Shaft length is designed to fit the application.



SPACER COUPLINGS allow easy removal of coupling hubs without moving connected machinery Reduced weight of spacer is a decided advantage over solid shafts in installations where machines are separated.

HUB BORE OPTIONS

- Single or double keys, square or rectangular
- Keyless mounting of coupling with hydraulic removal
- Spline hub bores
- Tapered bores for mill motors

SPECIAL DESIGNS are needed when an application requires a non-standard coupling, H&S can design one to meet the required specifications. In the majority of cases, existing gear components are used to help reduce costs.

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