

HDSF Heavy Duty Split Frame



Splits open for quick, Easy mounting to pipe



Simultaneously cuts and bevels out-of-round pipe



Out-of-Round Tracking Slides follow the pipe contour

BUILT FOR BIG JOBS IN THE FIELD

HDSF Heavy Duty Split Frame clamshell style machines are the largest and most rugged in the Wachs split frame family, and are designed to cut, bevel, single point, counterbore and face flanges on large diameter pipes from 12" to 84" O.D. (DN300-2100). Designed for parting and beveling of larger diameter pipelines in the field, the HDSF series is constructed with a bigger cross section, larger gear sets and massive hardened steel components.



HDSF Heavy Duty Split Frame - Overview



Standard with lifting rings for horizontal or vertical mounting.



Clamping Legs Speed Setup and handle multiple pipe diameters



Standard O.D. spring tracking slides for out-of-round pipe

The E.H. Wachs HDSF pipeline series of split frames are shipped as complete kits to handle typical large diameter cutting and beveling projects. For demanding applications or specialized operations, a select group of HDSF accessories are available for counterboring, heavy wall beveling and large diameter flange facing.

Built to the same exacting standards as the HDSF and specially designed for ruggedness, these accessories greatly extend the HDSF's machining capabilities. As part of a complete large diameter weld prep machining system, they're built to withstand the punishment of tough field usage, day in and day out.

Wachs HDSF Heavy Duty Split Frames are often referred to as "pipeline" machines, they're ideal for cutting and beveling large diameter pipelines in the field, where rugged reliability is more important than light weight or compact dimensions.

BUILT FOR BIG JOBS

Named for its ability to be split in half or scissor open for mounting to the O.D. of inline pipe, the HDSF split frame produces a precision lathe finish using Wachs cold cutting process. Unlike torch cutting and grinding, machining minimizes the risks associated with hot cutting, an important consideration anywhere hydrocarbons are present. Cold cutting also eliminates the undesirable HAZ (Heat Affected Zone) common with torching.

SIX STANDARD SIZES

Available in six standard sizes to cover the most common pipeline diameters (with custom sizes available by special order), each HDSF can accommodate a full 12" (305mm) range of diameters per machine size. Offered as complete kits, they're available in your choice of hydraulic or pneumatic drive with tool slides, trip and drive motor all included.

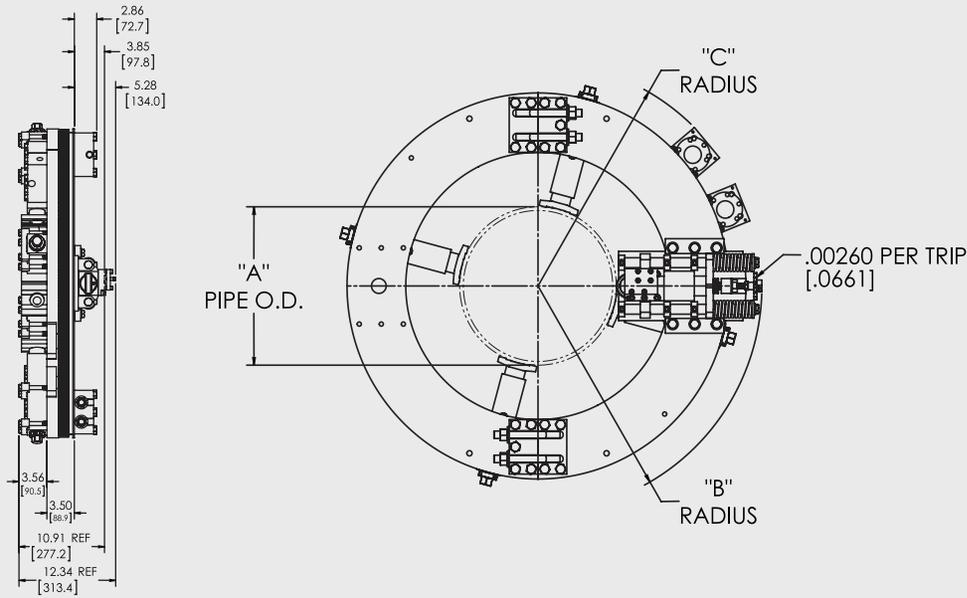
HDSF HEAVY DUTY SPLIT FRAME FEATURES

- Cuts and preps pipe from 12 to 84 inches O.D. (DN300-2100)
- Precise cold cutting process reduces risk of explosion, eliminates heat affected zone
- Fast setup, cutting and prep times with standard O.D. tracking tool slides
- Select hardened steel components, bigger cross section, larger gear sets
- Built in lifting eyes for vertical and horizontal mounting
- Standard ratcheting hinge mechanism opens and closes frame quickly
- Hydraulic or Pneumatic drive options
- Lathe machining process delivers precision compound bevels and consistent lands
- Applications in power generation, oil refineries, petrochemical and pipeline

HDSF DESIGN CAPABILITIES

- Six standard models cover 12 to 84 inches O.D. (DN300-2100)
- Larger sizes available by special order
- 12" (305mm) diameter capacity between the six standard HDSF models
- Larger interior frame clearance to accommodate obstructions and deformed pipe
- Full roller bearing (rather than bushing) load surfaces for durability and stability
- Fully enclosed bearings and drive gears for precision and durability
- Positive mechanical starwheel feed
- Corrosion resistant finishes on all components to withstand harsh environments
- Mounts to O.D. with drive motor and slides installed, ready to operate
- Accessories are interchangeable between all Wachs HDSF machines

HDSF Heavy Duty Split Frame - Specifications



MODEL NUMBER	PART NUMBER	DIMENSION "A" PIPE OUTSIDE DIAMETER		DIMENSION "B" SLIDE CLEARANCE		DIMENSION "C" PINION CLEARANCE		OPERATING WEIGHT*	
		IN	MM	IN	MM	IN	MM	LBS	KG
HDSF 1224	P03-010-424	12.75-24	323.9-609.6	21.24-26.86	539.5-682.3	22.61	547.4	950	431
HDSF 2436	P03-010-436	24-36	609.6-914.4	26.86-32.86	682.3-834.7	28.61	726.8	1200	544
HDSF 3648	P03-010-448	36-48	914.4-1219.2	32.86-38.86	834.7-987.0	34.61	879.2	1800	816
HDSF 4860	P03-010-460	48-60	1219.2-1524.0	38.86-44.86	987.0-1139.4	40.61	1031.6	2200	998
HDSF 6072	P03-010-472	60-72	1524.0-1828.8	44.86-50.86	1139.4-1291.8	46.61	1184	2600	1180
HDSF 7284	P03-010-484	72-84	1828.8-2133.6	50.86-56.86	1291.8-1444.2	52.61	1336.4	3000	1360

*Approximate operating weight, varies by drive and configuration.



HDSF mounts to pipe exterior for precision weld preparation



HDSF stores securely in provided shipping crate with accessories



Perform weld preparation in the field or fabrication facility

HDSF Heavy Duty Split Frame - Accessories



Universal Counterbore Slide

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Built to the same exacting standards as the HDSF and specially designed for ruggedness, these accessories greatly extend the HDSF's machining capabilities. As part of a complete large diameter weld prep machining system, they're built to withstand the punishment of tough field usage, day in and day out.

With accessories, HDSF Heavy Duty Split Frames can be configured to compound bevel, counterbore, bevel heavy wall pipe and face large diameter flanges.

UNIVERSAL COUNTERBORE SLIDE ASSEMBLIES

Max. axial travel: 1 3/4in (44.5 mm). Mounts to bevel tool slide.

ITEM	CODE	PART NUMBER
Universal counterbore slide module for WACHS LCSF.	960 405 820	60-405-UC
Counterbore tool bit taper 4:1 (14°) for use with counterbore slide module	960 700 040	60-700-04



HDSF Cantilever Slide

HDSF CANTILEVER SLIDE

The HDSF Cantilever Slide is a multipurpose slide that can be configured to counterbore, bevel heavy wall and face large diameter flanges, even those coated with exotic materials. Made with hardened materials, the HDSF Cantilever Slide is gear driven for powering through the toughest and heaviest pipe wall and material. Universal fit to all HDSF ring sizes, templates for compound and J-Prep bevels are included.

HDSF DUAL DRIVE MOTOR

The HDSF Dual Drive Motor option includes two pinion drives and two drive motors, and allows the HDSF to smoothly and effortlessly cut and bevel the toughest material and the heaviest wall thickness. The combination of two drives dramatically increases the available torque, and produces an even finer finish due to the regulating action of the second drive.



HDSF Dual Drive Motor

HDSF END MILLING HEAD

The HDSF End Mill Head cuts and bevels pipe of any wall thickness, including materials up to X80 carbon steel. The low friction adjustable bearing system provides maximum stability and extended machine life and includes a fully enclosed bearing and drive gear system for operational stability.

SPECIFICATIONS

- Cutting Tool Speed: 0-250. (Ideal operating 11 g.p.m at 230 RPM).
- Cutting Tool Size: 3/4" Cobalt roughing end mill.
- Hydraulic Drive Requirements: 15 Gallons per Minute @ 2000 PSI minimum.
- Feed Method: Gear drive Hydraulic. Cutter plunge manual feed.
- Feed Rate: 0-2 Inches per minute. (Ideal feed rate 1-1/2 at 3 g.p.m).
- Finish: Milling N8 to N9. Beveling 250 to 125 (6.3 to 3.2).
- Packaging: Heavy duty storage case. (Wood container).



HDSF Milling Head