

CRANKSHAFT DEEP FILLET ROLLING MACHINE MODEL DFR – 600



REDUCED SIZE Deep Fillet Rolling Machine



ADVANTAGES

- Increases crankshaft fatigue strength
- T.I.R. measuring
- Roll straighten crankshafts
- Pulse rolling minimizes part distortion
- Simplified design and reduced components for improved R & M
- Reduced floor space required, less length under gantry
- Highly flexible for various part types
- Fast changeover
- Improved cycle time = more throughput
- Many available options, including non-contact TIR and advanced servo on-demand HPU

FEATURES

- Broken tool detection utilizing Montronix system
- User friendly operation & diagnostics
- Closed loop force monitoring for process verification
- Simplified tool arm raise and lower mechanism
- Improved penetration measuring system
- New Siemens CNC HMI without PC
- New linear position technology to detect tailstock, tool arms, and TIR gauge location for improved changeover protection
- Quick change tooling
- Improved more flexible tooling design
- Fixed headstock position

Technical Data



CRANKSHAFT DATA	DFR-600
Maximum length approx.	600.0 mm (23.62 in)
Max. length, end mains CL to CL	530.0 mm (20.9 in)
Minimum length	300.0 mm (11.81 in)
Maximum stroke	100.0 mm (3.94 in)
Minimum pitch between adjacent journals	30.0 mm (1.2 in)
Max./ Min. journal diameters	Main Journals: 40.0 – 90.0 mm (1.57 – 3.54 in) Pin Journals: 40.0 – 70.0 mm (1.57 – 3.15 in)
Maximum swing diameter	320.0 mm (12.6 in)
Minimum journal width @ collar	18.0 mm (0.71 in)
MACHINE DATA	
Maximum clamp force	30.0 kN (6750 lb)
Maximum rolling speed (RPM)	120
Maximum number of rolling arms	11
Approximate basic machine size L x W x H	3.7 x 2.2 x 2.2 m (12.2 x 7.2 x 8.2 ft)
Approximate floor space L x W x H (w/HPU)	5.1 x 4.6 x 2.3 m (16.75 x 15.2 x 8.2 ft)
Approximate machine weight with electrical panel and HPU	10,430 kg (22,150 lbs)
Tool arm width	28.5 mm
Pneumatic	Not required
Electrical (typical running power consumption)	18 kVA
Electrical (full load)	36 kVA
Hydraulic system pressure and size	159.1 BAR (2308 PSI) 250 L
Cylinder area	18.8 cm ² (2.922 in ²)
Max force @ roller w/2 rollers @ 35°<	18.3 kN / 4117 lb
Max force @ roller w/2 rollers @ 30°<	17.3 kN / 3894 lb

Larger sized machines, Special features and Options available