

# EnviroSet<sup>™</sup> option for full and low flow pumps

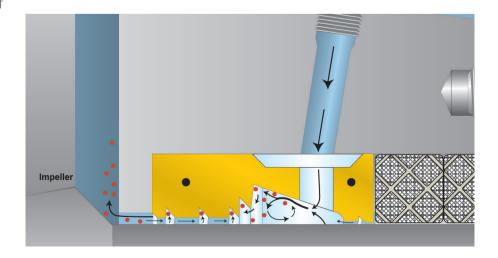
The Metso EnviroSet<sup>™</sup> is a total sealing solution developed together with A.W. Chesterton and made up of high quality packing with superior sealing capabilities and a unique, patented throat bushing specially engineered to transform and control the internal stuffing box environment in slurry pump equipment.

Horizontal centrifugal slurry pumps are typically installed in very harsh environments pumping high concentrations of abrasive particles. When gland flush water requirements fall below specifications, these particles can migrate between the packing material and shaft sleeve and cause considerable damage along with premature failure of parts. Down time and costly repairs can soon follow.

The SpiralTrac™\* throat bushing enhances the gland water flow and centrifugal effects around the shaft. The built-in tangential lantern ring and helical grooving system impart motion to the flush, and the resulting centrifugal force which throws the particles in the fluid to the outer bore of the separation chamber. The grooving system then hydrodynamically pumps the solids to the impeller end of the stuffing box and into the pump casing. This ability to remove particles from the stuffing box is the key to improving packing and shaft sleeve longevity.

\*SpiralTrac™ is a trademark of EnviroSeal Engineering Products Ltd.

The Chesterton 1830SSP packing is designed to withstand harsh environments and deliver a long sealing life. Constructed from a hybrid yarn combining advanced, expanded graphite PTFE yarn, and braided into a dense packing with carbon yarn reinforcement. This density minimizes weepage of the process fluid through the packing reducing the leak rate of the packing. The material and design incorporate internal lubricants that are released as the packing consolidates to ensure low heat generation which extends the life of the packing and minimizes sleeve wear. This unique construction yields a packing that is non-abrasive, pliable, chemically resistant, yet able to resist extrusion and abrasive particles.





# Features and benefits

## **Reduced water consumption**

• Reduced cost of operation and environmental impact

## Solids are kept away from packing

• Extended packing life and reduced shaft sleeve erosion

#### EnviroSet<sup>™</sup> is split design

• Simplifies installation

# **Carbon graphite filled PTFE**

Durable corrosion resistant material of construction other materials available

# High quality packing

• Low leakage to atmosphere, fewer adjustments of gland follower, and reduced wear rates on all components

## Abrasive solid particles are removed from gland water area

• Reduced gland water quality acceptable with maintained long component life

# Retrofit into existing full and low flow stuffing

• Reduced operating cost and wear problems on existing pumps

#### Water usage comparison

Frame	Kit material	Flow rate (Liters/min)			Flow rate (Gal/min)		
size	number	Low flow	Full flow	EnviroSet™	Low flow	Full flow	EnviroSet™
250	SA212210	3	13	2,0	0,8	3,4	0,5
300	SA212211	6,5	18,5	3,5	1,7	4,9	0,9
400	SA212212	9	23	5,5	2,4	6,1	1,5
500	SA212213	11,5	28	7,0	3,0	7,4	1,8
600	SA212214	13,5	32	8,0	3,6	8,5	2,1
750	SA212215	16	36	10,0	4,2	9,5	2,6
900	SA212221	-	35	16,0	_	9,2	4,2
1000	SA212220	_	40	21,0	_	10,6	5,5
1200	SA212222	-	50	22,0	_	13,2	5,8
1400	SA212315	_	60	22,0	_	15,9	5,8

Gland water pressure in all configurations should be maintained at 1 bar (14.7 psi) above process pressure.





- Metso Minerals (Sweden) AB
   Norrängsgatan 2, SE-733 38 Sala, Sweden, Phone: +46 224 570 00, Fax: +46 224 169 50
- Metso Minerals Industries Inc.
   4820 Centennial Blvd, Suite 115, Colorado Springs, Co 80919-3351, USA, Phone: +1 719 471 3443, Fax: +1 719 471 4469
- Metso Minerals Industries Inc.
   P.O. Box 96, Birmingham, AL 35201, USA, Phone: +1 205 599 6600, Fax: +1 205 599 6623
- Metso Minerals (South Africa) (Pty) Ltd.
   Private Bag X2006, Isando, Johannesburg, 1600, South Africa, Phone: +27 11 961 4000, Fax: +27 11 397 2050
- Metso Minerals (Australia) Ltd.
   Level 2, 1110 Hay Street, West Perth, WA 6005, Australia, Phone: +61 8 9420 5555, Fax: +61 8 9320 2500
- Metso Minerals (India) Pvt Ltd
  1th floor, DLF Building No. 10, Tower A, DLF Cyber City, Phase Ill, Gurgaon 122 002, India, Phone: +91 124 235 1541, Fax: +91 124 235 1601
- Metso Perú S.A.
  Calle 5 Nro. 144, Urb. Industrial Vulcano, Ate, Lima 03, Peru, Phone: +51 1 313 4366, Fax: +51 1 349 0913
- Metso Minerals (Chile) S.A.
   Av. Los Conquistadores 2758, Piso 3, Providencia, Santiago, Chile, Phone: +56 2 370 2000, Fax: +56 2 370 2039
- Metso Brasil Indústria e Comércio Ltda.
   Av. Independência, 2500 Éden, 18087-101 Sorocaba-SP Brazil, Phone: +55 15 2102 1709



www.metso.com E-mail: minerals.info@metso.com Pumps information at www.metso.com/pumps